

ORIGINAL

BEFORE THE ENVIRONMENT COURT

Decision No. C058/2009

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of an appeal under section 120 of the Act

BETWEEN WAIAREKA VALLEY PRESERVATION
SOCIETY INCORPORATED
(ENV-2008-CHC-000046)
KAKANUI RIVERWATCH SOCIETY
(ENV-2008-CHC-000049)

HOLCIM NEW ZEALAND LIMITED
(ENV-2008-CHC-000050)

RENALSON
(ENV-2008-CHC-000085)
Appellants

AND

WAITAKI DISTRICT COUNCIL and
OTAGO REGIONAL COUNCIL

Respondents

Hearing at OAMARU on 9-13 March, 30-31 March, 1-3 April, 6-10 April, 14-17
April and 13-15 May 2009

Court: Environment Judge R G Whiting (presiding)
Environment Commissioner C E Manning
Deputy Environment Commissioner B Gollop

Appearances: Mr M Christensen and Ms M Thomas for Holcim Ltd
Mr A Logan for Otago Regional Council and Waitaki District Council
Mr R Somerville QC and Ms J Bright for Waiaureka Valley Preservation
Society Incorporated
Ms J Forret and Ms J Bright for Waitaha Trust Board and Renalson
Mr S Bray for Te Runanganui O Waitaha me Maata Waka
Ms J Anaru for Kakanui Riverwatch Society Incorporated

Date of Issue: 14 August 2009



DECISION OF THE ENVIRONMENT COURT

- A. The appeals are dismissed save for the amendments to the conditions of consent in accordance with Appendix 1; and
- B. The consent of the Waitaki District Council for the construction and operation of a cement manufacturing plant and associated activities at Weston is confirmed, save for the amended conditions of consent in Appendix 1.



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Introduction

[1] Approximately 5km north-west of Oamaru is the small township of Weston. As one travels along the Weston-Ngapara Road one enters the Waiareka Valley. The road continues through the valley towards the Danseys Pass. The valley is a pleasant rural valley interspersed with noticeable limestone outcrops. As one travels north-west one views the backdrop of the Kakanui Mountains.

[2] The Waiareka Valley also contains large deposits of limestone, siltstone, tuff, silica sand and lignite coal. This combination of raw materials makes up a large proportion of the raw materials needed to manufacture cement. It is thus not surprising that Holcim (New Zealand) Limited and its predecessor Milburn New Zealand Limited have been interested in the possibility of establishing a cement manufacturing plant in the valley since the 1970s.

[3] To this end land has been purchased over the years and during the late 1970s and early 1980s changes were made to the then Waitaki County District Scheme to provide for specific cement works and extraction zones near Weston. Those provisions carried through to subsequent schemes, and ultimately became part of the Waitaki Transitional District Plan.

[4] The zones were not carried forward into the Waitaki Proposed District Plan. Instead a Cement Policy Area was introduced as an overlay to those areas, providing for the extraction of limestone and tuff and the manufacturing of cement as a controlled activity, subject to compliance with the district wide rules. Underlying the Cement Policy Area notation the land has a Rural-General zoning.

[5] On 20 February 2007 Holcim made four applications to the Waitaki District Council and to the Otago Regional Council for resource consents for:

- (i) the construction and operation of a cement manufacturing plant and associated facilities at Weston;
- (ii) limestone, siltstone and tuff quarries at Weston;
- (iii) a silica sand quarry at Windsor; and
- (iv) lignite coal pits at Ngapara.



[6] In February 2006 Holcim was granted the necessary resource consents subject to conditions. The grant of consents was appealed by a number of parties and at the time of hearing there were two appeals extant:

- (i) An appeal by Holcim on conditions of a number of the consents granted. Holcim's appeal on conditions has been resolved and these conditions are now fully agreed between all parties. We attach those conditions as Appendix 1.
- (ii) An appeal by the Waiareka Valley Preservation Society Incorporated relating only to the cement plant site (and not the quarries). Many of the issues raised in that appeal have been resolved. The remaining issues have been identified by the parties and set out in a document filed with the Court and headed "Statement of Issues in the Context of Section 104". That document is attached as Appendix 2. We discuss the contested issues so identified in Appendix 2.

As many of the issues overlap, it is important to read our discussion on the various issues as complementary to each other and they should be read together where relevant.

[7] On 27 May 2006 the District Council notified Variation 4 – **Exception to the Building Height Limit Rule for part of the Cement Policy Area/Rural General zone**. Variation 4 was introduced to remove what was described by some witnesses as an anomaly to the Plan arising from the 10-metre height rule of the underlying Rural-General zone. This effectively limited the height of buildings in the overlying Policy Area to 10 metres.

[8] A decision on the Variation was issued in February 2008 fixing the height rule in the Cement Policy Area in a way which mirrored the height of the buildings the subject of Holcim's application.

[9] Mr Renalson appealed the Council's decision and the appeal was heard contemporaneously with the appeal against the resource consent. However, notwithstanding the height rule, all parties accepted that the proposal was to be treated as a discretionary activity because it was in breach of three district wide rules relating to the



number of car parks, the storage and use of hazardous substances, principally ammonia and the scale of the wastewater treatment building. Accordingly, the parties agreed that a decision on Variation 4 would be of little moment to the resource consent application and would in fact be an unnecessary distraction. It was agreed that a decision on Variation 4 be deferred and that the parties would endeavour to settle the matter following the issue of a decision on the appeal against the resource consents.

[10] There are two section 274 parties who support the appeal of the Preservation Society. They are:

- (i) the Waitaha Taiwhenua o Waitaki Trust Incorporated; and
- (ii) the Te Runanganui o Waitaha me Maata Waka Inc.

The Waitaha section 274 parties were particularly concerned about the effect of the proposal on Māori.

The hearing

[11] The hearing took place over a period of 5 weeks at Oamaru. During that time we heard from 28 witnesses. The witnesses prepared both written briefs of evidence-in-chief and rebuttal. They were cross-examined, resulting in 1422 pages of transcript. During the hearing we made three site visits, which assisted in our understanding of the evidence. A large number of exhibits and documentation was produced.

[12] It is not possible in this decision to refer to all of the evidence including the exhibits and documentation. To do so would be impracticable and lengthy. We have had regard to all of the evidence in coming to our determination.

Background to proposal

[13] Holcim currently operates a cement plant at Cape Foulwind, near Westport, which was first commissioned in 1957. According to Holcim witnesses, because of its age, size and restricted capacity it cannot supply the existing market. Some years ago, Holcim identified that a comprehensive strategic appraisal of its long-term cement supply option was needed. It considered a broad range of alternatives including:



- (i) upgrading the existing Westport plant;
- (ii) building new manufacturing capacity in New Zealand at Westport or elsewhere; or
- (iii) importing all cement needs.

[14] Holcim considered eighteen locations in New Zealand as possible new cement plant sites¹. A new plant at Weston, near Oamaru, was identified as the preferred option in November 2007².

[15] In the 1980s, all necessary consents were obtained for a cement plant on the same site. The layout and dimensions of the proposed 1980 plant were similar to that of the current proposal, but the footprint of the current proposal is approximately 8 hectares smaller than the 1980s plant³.

The proposal

[16] Holcim's proposal consists of:

- (i) a cement plant adjacent to the Weston-Ngapara Road, approximately 3 km from Weston, on land owned by Holcim since the 1970s;
- (ii) a limestone siltstone quarry and a tuff quarry adjacent to the cement plant;
- (iii) a sandpit to be located near Windsor, approximately 12 km from the plant site; and
- (iv) a lignite coal pit near Ngapara, approximately 19 km from the plant site. This pit will supply fuel to the plant, with the coal being transported by truck.

[17] Attached as Appendix 3 is a map⁴ showing the location of the proposed activities. As the appeals relate to the proposed cement plant we concentrate on that activity. The proposed plant would have a footprint of approximately 24 hectares. It is proposed to produce approximately 650,000 tonnes of cement at the start up, increasing to approximately 880,000 tons overtime⁵.

¹ Cowie, EIC, paragraph 3.3.

² Cowie, EIC, paragraph 3.12.

³ Cowie, EIC, paragraph 4.2.

⁴ Rackham, EIC, Figure 1.

⁵ Ward, EIC, paragraph 3.4.



[18] The proposed plant would be in close proximity to the raw materials limestone, siltstone and tuff which makeup 94% of the required raw materials. A site location map is attached as Appendix 4⁶. A conveyor belt tunnelled through the escarpment would take the raw materials from the limestone/siltstone quarry to the plant.

[19] Appendix 5⁷ is a graphic representation of the proposed plant. There are three proposed covered storage areas at the northern end of the cement plant site, fed by trucks and the conveyor. At the southern end would be the workshop and administration building, carparking and an electrical substation. Between these two areas the plant would be made up of a range of buildings and connecting conveyors. The tallest of these buildings is the vertical preheated tower and main stack – 110 metres above ground level. Other large buildings would include silos and mills, resulting in a complex of varied building forms.

[20] The proposed plant is to be sited on naturally sloping terrain and stepped up the slope from the north-west corner to the south-east corner adjacent to the railway line. The plant is predicted to take approximately 2 years to construct.

[21] At full production, the plant's design capacity would be 2400 tons of clinker per day. Cement would be taken from the plant site to Port Timaru by two return train trips per day. The railway has recently been redesignated. The designation was confirmed by On-track, and no parties have appealed that decision.

Status of activity

[22] The land use consent for the construction and operation of the cement manufacturing plant is the only consent the subject of this appeal. All parties agree that the land use aspect of the proposal is to be treated as discretionary. It would have been treated as a controlled activity but for three minor non-compliances. The non-compliances relate to the number of carparks required, the scale of the wastewater treatment building and the storage of hazardous substances. The air discharge and water diversion/discharges (which are not before the Court) are discretionary activities.

⁶ Ward, EIC, Figure 2.

⁷ Ward, EIC, Figure 16.



The receiving environment

[23] The receiving environment was described in considerable detail by a number of witnesses. The most succinct description was contained in the evidence of Mr Petchey⁸.

[24] The Waiareka Valley is located in the rolling hill country between the Kakanui and Waitaki Valleys. The area is predominantly agricultural in nature with a number of small scattered settlements, of which Weston, Enfield, Ngapara and Windsor respectively are closest to the proposed plant site, limestone/siltstone/tuff quarries and coal and sandpits.

[25] North Otago has a long history of pastoral farming, and a number of runs and homesteads can be found within the North Otago area. One of the best known and grandest is Otekaieke, or Campbell Park, in the Waitaki Valley near Kurow. Another, Kuriheka Estate, can be found in the Kakanui Valley. In the Waiareka Valley there are a number of homesteads (or sites of former homesteads), such as Windsor Park, Burnside, Totara and Elderslie, together with their outbuildings and estate plantings of imported tree species.

[26] There are also a number of historic smaller farmhouses and cottages throughout the North Otago area, as well as community buildings such as churches, hotels and stores, and commercial buildings such as the flourmill at Ngapara. These range in date from the 1860s to the present day.

[27] The area also has a history of quarrying, with limestone quarries at Totara, Parkside and Cormacks. Towards the head of the valley there is a large active goldmine at Macraes Flat provided for in the District Plan by a Mining zone.

[28] The District Plan identifies 7 registered historic places in the valley and we are also mindful of the inventory of 28 historic places and sites not registered but attached to Mr Albiston's evidence⁹, a matter we discuss in greater detail later in this decision.

⁸ An archaeologist called by Holcim – see Petchey, EIC, paragraphs 4.1 and following.

⁹ Mr Albiston is a founding member of the Society and operates a tourist business from the Burnside Homestead. He was called by the Society – see Albiston, EIC, Appendix 3.



[29] The plant site consists mainly of cropland. It lies between the Weston-Ngapara Road to the west, and a notable 100 metre high limestone escarpment – the Whitstone Escarpment¹⁰ That defines its north and east side. The Te Ana Raki massif or Whitstone escarpment is identified in Plan Change 2 of the District Plan as a significant natural feature. The site of the proposed quarry is not within the escarpment as identified but sits below and is contiguous to it.

[30] The ground behind the escarpment slopes gently down, before rising again to a low rounded hill. The proposed plant site will be situated at the base (south-west) of the escarpment, while the limestone quarry will be behind the escarpment. An existing limestone quarry is situated a short distance to the south, at Cormacks.

[31] The closest heritage site to the proposed plant site at Weston is the site of the former Whitstone homestead of the Oamaru Run and the Old Cave Valley School, which is owned by Holcim, but outside the plant and quarry site. Across the road from the proposed plant site is an historic farmstead site, consisting of a number of limestone farm buildings, also now owned by Holcim (which are not part of the application site). Also across the road from the site are two World War I Memorial Oak trees protected by the District Plan.

[32] There is residential development in the Waiareka Valley. Of importance to this application, is the ribbon of residential development along Kia-Ora Road immediately across the Weston-Ngapara Road and to the south-west of the proposed site. A number of the residents living in that area gave evidence on how the Holcim proposed would affect them.

[33] The Te Ana Raki massif is of considerable importance to Māori. We heard evidence of Maori occupation in the Waiareka Valley and how the escarpment played a part in that occupation. Today the escarpment contains tangible evidence of that occupation, including rock art, and various archaeological sites such as moa pits.

¹⁰ It was variably called the Whitstone Escarpment, the Whistone bluff, the Whistone cuesta, and Te Ana Raki. We in this decision will refer to it as either the "Whistone escarpment" or "Te Ana Raki" – the terms most generally used in the evidence.



[34] Also of importance is the recent introduction of irrigation and the consequential establishment of "*precision dairying*" which has led to major changes in the appearance of the valley¹¹.

Statutory basis for decision

[35] The land use consent is a discretionary activity. Thus we are to exercise our discretion in accordance with section 104B after applying the directions contained in section 104. The relevant matters under section 104 are:

- (i) Part II (section 104(1));
- (ii) the actual and potential effects on the environment of the activity (section 104(1)(a)). These include cumulative effects from all the activities for which consent was sought, whether or not those consents are now contested;
- (iii) the relevant provisions of the Regional Policy Statement (section 104(1)(b)(iii));
- (iv) the relevant provisions of the District Plan (section 104(1)(b)(iv)); and
- (v) other matters (section 104(1)(c)) namely:
 - (a) the Kai Tahu ki Otago Natural Resource Management Plan;
 - (b) whether there has been sufficient consideration of alternatives to meet the requirements of Schedule 4 and section 105(1)(c).

Relevant statutory instruments

[36] We have identified the Regional Policy Statement and the District Plan as the two relevant statutory instruments. The relevant provisions of those documents have been identified by counsel and lodged in the Court together with the statement of issues. We attach as Appendix 6 the relevant planning provisions identified by the parties. We propose to discuss specific provisions as they relate to the identified issues which we are about to discuss. There are, however, more general issues raised about the District Plan that we address now.



the evidence of Mr Purves, Mr Weaver, and Mr Malcom.

doc (sp)

[37] The relevant key provisions of the Plan are:

- (i) the relevant objectives and policies;
- (ii) the permitted activities for the Rural General zone;
- (iii) the Cement Policy Area as marked in the Planning Maps;
- (iv) the "significant natural feature" classification of the escarpment.

[38] The relevant objectives and policies of the Plan are relevant to the contested effects arising from the proposal, particularly Māori cultural, landscape, heritage and amenity issues. We discuss them at the relevant time. Certain objectives and policies have been identified, and need to be considered when considering the weight, if any, we should give to the Cement Policy Area.

[39] Activities which may take place as of right under section 9 and under the Activity Rules, had been identified by the planning witnesses, particularly Mr Purves¹². We consider that the permitted baseline has little utility in assessing the effects of a project of this scale.

[40] The Cement Policy Area comprises a notation on the Planning Maps. The Plan contains a controlled activity rule for the extraction of limestone and tuff and the manufacture of cement within the area delineated on the Plan¹³. The plant site is within the Policy Area, however, as we have said, other non-compliance with Plan provisions, make the proposal a discretionary activity.

[41] It was suggested that as an "area" the CPA has less weight than a zone. We do not agree. Mr Logan submitted that the difference between an "area" and a "zone" is semantic. We consider any difference to be a matter of form rather than substance. Like a zone, the CPA is delineated on the Planning Maps and has a rule which applies in the bounds shown on those maps. The Act does not require either zones or areas. It provides for rules and other methods. Zones and areas are adjuncts to rules allowing, controlling or prohibiting activities. Areas and zones define where the rules apply. "Areas" and "zones" are different methods giving effect to objectives and policies in the Plan.

¹² Robutta, paragraphs 9-11.
¹³ Rule 4.3.2.3, page 201.



[42] It was also contended that the CPA has no policy basis in the Plan. Again, we do not agree. Section 16 of the Plan addresses the issue of mineral extraction. "Mineral extraction" is not defined in the Plan but "*mining activity*" is:

Means the use of land and buildings for the primary purpose of the extraction, winning, quarrying, excavation, taking and associated processing of minerals and any ancillary activity related to mining but does not include prospecting and exploration.

[43] The definition of mining activity links extraction with the associated processing of the mineral and any related activity. This is followed through into the controlled activity rule for the CPA which states:

Extraction of limestone and tuff (mining) and the manufacture of cement only in the Cement Policy Area (refer Planning Maps 22 and 26).

...

[44] Objective 16.7.1.6 and the associated policies give an unambiguous direction that "extractive industries" are to be given the ability to access minerals, but in a way that avoids, remedies or mitigates adverse effects on the environment. The "Implementation Methods" provide:

2. The recognition of known and important mineral deposits through the provision of a Macraes Mining zone and a Whitstone Cement Extraction Policy Area.

[45] In the "Explanation" and "Reasons" it says:

It also recognises the importance of the mineral extractive industry to the district and will seek to protect known deposits that are, to a greater or lesser extent, being extracted. This is particularly relevant to the gold mining at Macraes Flat, and the extraction of limestone for the purposes of cement manufacturing near Whitstone which was recognised in the previous Plan. Both these locations are considered as specific policy areas. The Council shall take into account the potential loss of access to these minerals when considering any applications for any future activities or development.

[46] A purposive reading of Objective 6, the associated policies, the implementation methods, the explanation and reasons and the controlled activity rule leave us in no doubt that the Plan through objective 6 proposes that the CPA is to be an area that anticipates



the manufacture of cement. We are reinforced in this view as the Plan says in section 16.1.1:

It is acknowledged that lime from Whitstone, coal from Ngapara, and silica from Windsor can be extracted for the purposes of cement manufacturing which is carried out near Whitstone.¹⁵

[47] We appreciate that Objective 6 and its associated activity rules create a tension with those objectives and policies that protect the rural environment and amenity, a tension that needs to be resolved on a case by case basis.

[48] It was further contended that little weight should be given to the CPA because of the manner in which it was rolled over into the Plan from an earlier zoning. It is well settled that we must take the Plan as we find it and not foray into the process of the Plan's formation. In any event, we are satisfied that the Council made a conscious decision to make provision for the CPA. The Council's consultant planner Davie Lovell-Smith in 1993 did not include any provision for cement manufacture in the draft Plan and invited the Council to specifically consider whether provision should be made¹⁶. What emerged in the notified Plan in 1996 was not a repetition of what had gone before. Two zones were replaced by the single Cement Policy Area and cement manufacture moved from being a permitted to a controlled activity. There were no opposing submissions.

[49] Because cement manufacturing also comes within the definition of "industrial activities" we must also have regard to section 16.6 of the Plan headed "Commercial and Industrial Development" and in particular Policy 16.6.2.5.2. Policy 2 provides for the establishment of business activities in the Rural zone provided certain caveats are met:

- (i) Such activities need to be established in the rural area because of their scale, effluent disposal requirements or the use of, or relationship to, rural resources; and
- (ii) No reasonable alternative exists for their location within established settlements.



[50] We are satisfied on the planning evidence that no reasonable sites exist within other possible business zones or within established settlements. Again, we acknowledge that there exists a tension between industrial development in the rural area and loss of rural amenity, a tension which also needs to be resolved on a case by case basis

[51] We find that the CPA is relevant to the extent that cement manufacturing is anticipated as a controlled activity in the delineated area. As the proposal is a discretionary activity we must however apply the appropriate statutory directions. It is the scale of the proposal and the adverse effects that need to be balanced and considered within the context of the relevant statutory directions.

[52] We now turn to discuss the identified contested issues. We do not propose to follow the order set out in the Statement of Issues as there is some overlap, and some of the issues can be more efficiently discussed together. Because the Māori cultural issues underlay our application of sections 6(b) and 6(f) of the Act, as well as those provisions that relate to Māori, we discuss Māori issues first.

Actual and potential effects (section 104(1)(a))

Iwi cultural issues

Introduction

[53] We were faced with a clear divergence of opinion as to the effects of the proposal on Māori. Te Runanga o Moeraki, representing Kai Tahu whanui, considered that the proposed conditions of consent satisfactorily addressed Māori issues¹⁷. On the other hand the Waitaha Taiwhenua o Waitaki Trust Board Incorporation and Te Runanganui o Waitaha Me Mata Waka Inc. both sought that the consent be declined because of the adverse effect on Māori.

[54] The point of difference between the two Māori points of view has its genesis in the complex historical relationship between Waitaha and Ngai Tahu. Ngai Tahu take their name from Tahu Potiki, who lived his life around the area now known as Poverty Bay. Some time in the 17th century¹⁸ his descendants gradually migrated south, travelling

¹⁷ Mantell, EIC, paragraph 6.2.

¹⁸ See Waitangi Tribunal Reports: Ngai Tahu 1991; 3 WTR at pages 368 and following.



first to the Wellington coast and then crossing Raukawamoana (Cook Strait) in several waves to Te Wai Pounamu (South Island). Over a number of generations they spread over the large expanse of the island and onto Rakiura (Stewart Island).

[55] As Ngai Tahu moved south they came into contact with iwi who occupied the islands before the migrations (heke) – particularly Ngati Mamoe (recent immigrants) and Waitaha (recognised as the first people in the South Island). The name Waitaha refers to all those who occupied the South Island prior to the Ngati Mamoe and Ngai Tahu migrations. The name describes that people who trace their history back to Rakaihautu, who first landed the Uruao Waka on the island.

[56] As Ngai Tahu moved south, they sometimes fought and defeated, and sometimes intermingled with the other tribes. As the Waitangi Tribunal described it:

In doing so they absorbed these peoples' older knowledge and experience of the land and its resources. This process of fusing Ngai Tahu with earlier communities was still continuing when Europeans first arrived on the island in the 18th century.¹⁹

[57] It is clear from the Waitangi Tribunal Report that the wars and migrations that peopled the island are many and varied. As the Tribunal said:

By the time of the Treaty, Ngai Tahu were in control of a vast territory, but like all iwi they existed in hapu and whanau communities, with different genealogies, often reflecting the mixed origins of the tribe.²⁰

And:

Each of these stories has many versions and to try and isolate which events occurred where and in what order has the danger of turning the rich and varied traditions of the tribe into a fixed and sterile narrative.²¹

[58] It is not possible, with the limited evidence before us, to attempt to unravel these complicated traditions. Our task is to ensure that genuine adverse effects on Māori are addressed by the application of the provisions of the Resource Management Act and any relevant statutory instruments.

¹⁹ Ibid, paragraph 3.1.1.

²⁰ Ibid, paragraph 3.1.10.

²¹ Ibid, paragraph 3.1.11.



[59] Notwithstanding their divergent views, both the Ngai Tahu and Waitaha witnesses agreed that early Māori had a strong connection to the Waiareka Valley. Where the Māori groups differed was: in the relative importance of individual locations to the Māori values; on the effects of the proposal on those values; and on the appropriate representative to deal with the Māori issues.

Statutory and planning framework

The Resource Management Act

[60] In achieving the single broad purpose of the Act, all authorities exercising powers under it are bound by certain requirements, and these include provisions that relate particularly to sensitivity to Māori issues. These are:

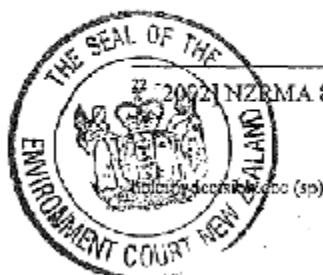
- (i) to recognise and provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga – section 6(c);
- (ii) to have particular regard to kaitiakitanga – section 7(a); and
- (iii) to take into account the principles of the Treaty of Waitangi – section 8.

[61] As was said in *McGuire v Hastings District Council*²²:

These are strong directions, to be borne in mind at every stage of the planning process.

The Regional Policy Statement

[62] The Regional Policy Statement – Manawhenua Perspective – contains matters of resource management significance to Ngai Tahu. The following objectives are to be considered:



4.4.1 Waahi tapu (sacred places)

To recognise the spiritual and customary importance of waahi tapu (such as burial places) to Kai Tahu and to recognise and provide for the protection of waahi tapu from physical disturbance, erosion, pollution and inappropriate land use.

4.4.2 Waahi taoka (treasured resources)

To recognise and provide for the special significance that all taoka play in the culture of Kai Tahu.

The Waitaki District Plan

[63] The Waitaki District Plan contains the following objectives and policies to be considered:

1.3.4 Objective B

Protection and, where appropriate, enhancement of waahi tapu, waahi taoka, cultural property and mahika kai.

1.3.5 Policies B

1. To recognise and to protect the values attached to waahi tapu, waahi taoka and cultural property of iwi.
2. To allow Kai Tahu to manage waahi tapu, waahi taoka and cultural property of the iwi.
3. To recognise important mahika kai areas and to protect such areas.

The Kai Tahu ki Otago Natural Resource Management Plan

[64] The Kai Tahu ki Otago Natural Resource Management Plan (2005) is the principal planning document for Kai Tahu ki Otago – the four Paatipu Runanga and associated whanau and ropu of the Otago region. The Plan provides information, direction and a framework to achieve a greater understanding of the natural resource values, concerns and issues of Kai Tahu ki Otago. It also provides a basis from which Kai Tahu ki Otago participation in the natural, physical and historical resources of Otago can be further developed.

[65] Within Chapter 6 – Waitaki Catchments – the following issues relating to waahi tapu are identified, and the following policies advocated:



[67] In the preamble to the Act it states:

Whereas Ngai Tahu wishes to establish an enduring tribal structure to manage its assets and its business and to distribute benefits to the Papatipu Runanga and the individuals comprising the tribal membership of Ngai Tahu;...

[68] Section 2 states:

Interpretation

In this Act, unless the context otherwise requires, Ngai Tahu whanui means the collective of the individuals who descend from the primary hapu of Waitaha, Ngati Mamoe, and Ngai Tahu, namely, Kati Kuri, Kati Irakehu, Kati Huirapa, Ngai Tuahuriri, and Kai Te Ruahikihiki.

[69] Section 3 of the Act binds the Crown and every person whose rights are affected by any provision of this Act. Sections 7 and 8 provide for those who are eligible to be members of Ngai Tahu whanui and for the preparation of a roll containing the names and addresses of all adult persons who are members. Section 15(2) provides:

Where any enactment requires consultation with any iwi or with an iwi authority, that consultation shall, with respect to matters affecting Ngai Tahu whanui, be held with Te Runanga o Ngai Tahu.

[70] As the preamble says, the Act's purpose is to establish an enduring tribal structure to manage its assets and business and to distribute the benefits. The Act further provides that it binds every person who is affected by any provisions. So far as Māori are concerned all members of Ngai Tahu whanui as provided for in sections 7 and 8 are so bound. It would not in our view bind non members. Similarly the provisions requiring consultation under section 15(2) would only be binding with respect to the members of Ngai Tahu whanui.

Case law

[71] When dealing with Māori concepts, such as waahi tapu, the Court needs to take a principled approach. The principles are well settled. First, the concept should be determined on the evidence, as best as possible, in the English language. Second, the existence and nature of the concept has to be decided in the same way as the Court decides any other question of fact – on evidence of probative value. Where there is no



physical evidence of a metaphysical concept such as waahi tapu, the Court should not make a finding of fact on assertions alone, but on an objective consideration of evidence tending to show the existence of an established metaphysical concept such as waahi tapu. Third, it is necessary to determine how the concept exists and how it can be recognised and provided for²³.

The issues

[72] The agreed Statement of Issues identifying the Māori issues has been encapsulated in the following five questions:

- (a) What are those values?
- (b) Will those values be affected, and if so, to what extent?
- (c) Does the evidence raise sections 6(e) and (f) issues arising from Waitaha's ancestral connection with the land?
- (d) Do the proposed conditions of consent appropriately avoid, remedy or mitigate any such effects? and
- (e) What body is appropriate for consultation on iwi issues?

What are the Māori values?

Introduction

[73] As we have said there was a clear divergence of opinion between the representatives of the statutory governing body of Ngai Tahu and the Waitaha section 274 parties. The Ngai Tahu witnesses told us that the cement plant and associated activities are within the tūkiwa of Te Runanga o Moeraki and that the Runanga is the Kaitiakitaki Papatipu Runanga which has manawhenua for the Waiareka Valley catchment²⁴.

²³ See *Winstons Aggregates and Hearibeat Charitable Trust v Franklin District Council*, Environment Court Decision A080/2002, at paragraph 248; *Miniknick v Minister of Conservation*, Environment Court Decision A043/2004, at page 161; and *Ngati Hopoko ki Hokowhitu v Whakatane District Council*, Environment Court Decision C168/2002, paragraph 3.2.



[74] The Waitaha witnesses claim mana whenua. They maintained that Kai Tahu (or their appointed representative Te Runanga o Moeraki) were not sufficiently knowledgeable on Waitaha values and sites and therefore were not able to represent Waitaha interests or values in discussions with third parties such as Holcim²⁵.

[75] As we have said, this divergence of opinion has its genesis in history and has been debated before the Waitangi Tribunal, Government Select Committees and the High Court. There are those of Waitaha descent who consider themselves fused with the other tribes that incorporate themselves as part of Ngai Tahu. There are others, such as those that affiliate themselves to the section 274 parties, that consider Waitaha a distinct and separate tribe and refuse to be subsumed under the Kai Tahu umbrella.

[76] In our view it is not appropriate that such a polemical debate should be resolved by this Court. Section 30 of Te Ture Whenua Act 1993, gives the Māori Land Court the power to advise other Courts, Commissions and Tribunals as to who are the most appropriate representatives of a class or group of Māori, or to determine, by way of an order, who are the most appropriate representatives of any class or group of Māori. No such Māori Land Court determination or order was drawn to our attention. To delay these proceedings to enable such a determination to be made at this late stage would cause substantial delays and be unfair on the applicant.

[77] We heard from seven witnesses on Māori issues. Three were called by Holcim and gave evidence from the Ngai Tahu perspective. They were:

- (i) Ms Koa Joy Mantell - a part-time cultural supervisor and acting chairperson of Te Runanga o Moeraki;
- (ii) Ms Amanda Symon - curator of the Ngai Tahu Māori Rock Art Trust; and
- (iii) Mr David Higgins - Upoko of Te Runanga o Moeraki.

[78] Four witnesses were called by the section 274 parties and gave evidence from the Waitaha perspective. They were:



²⁵ Maharao-Dodds, EIC, paragraph 53.

²⁶ Ibid, paragraph 54.

- (i) Ms Anne Pate Sissie Te Maiharoa-Dodds – chairman of the Trust Board;
- (ii) Mr Robert Kenneth McAnergney – a person authorised to speak on behalf of the Trust Board on resource management issues in the South Island;
- (iii) Ms Barbara Ann Olsen – a Kaumatua member of Te Runanganui o Waitaha Me Mata Waka Incorporated; and
- (iv) Mr Stephen Joseph Bray – who represented the Te Runanganui o Waitaha.

[79] Notwithstanding their divergent views, both the Ngai Tahu and Waitaha witnesses agreed that early Māori had a strong cultural connection to the Waiareka Valley. The valley was frequently used by early Māori as a trail or traditional route way to travel between the coastal kaika and the Waitaki Valley. The area between the Kakanui and Waitaki Rivers is rich in archaeological sites, particularly rock art which reflects early Māori's connection with the land²⁶.

[80] The archaeology of the area suggests that the valley was a mihika kai (or resource gathering area) in its own right, with evidence of food gathering, cooking and consumption found within the floors of many of the rock art sites located in the Te Ana Raki massif²⁷.

[81] Ms Symon considered the archaeological sites in the North Otago area to be significant for a number of reasons²⁸. More than 250 archaeological sites of Māori origin have been recorded in the triangle of land bordered by the Waitaki to the north, the Kakanui Mountains to the south-east and the coast on the east²⁹. She told us that the sites show a broad range of function and are part of a broader pattern of settlement and utilisation that extended over much of the east-coast of the South Island. She said:

While there is no evidence of large-scale permanent Māori occupation in the Waiareka Valley, the accounts of early explorers and surveyors suggest that it formed part of a traditional route way used by Māori to travel between the coastal kaika and the Waitaki Valley.

...

²⁶ See Mantell, BiC, paragraph 2.11; Symon, BiC, paragraph 3.3.

²⁷ Symon, BiC, paragraph 3.3.

²⁸ Symon, BiC, paragraph 6.1.

²⁹ Symon's Appendix 1 attached to BiC, page 14.



In addition, the archaeology of the area suggests that the Waiareka Valley was a mahika kai (or resource gathering area) in its own right, with evidence of food gathering, cooking and consumption found within the floors of many of the rock art sites located in the Te Ana Raki massif.³⁰

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[82] The Waitaha witnesses put the archaeological sites in the broader context and perspective of being part of an extensive number of sites linked to a wananga, or seat of learning, centred at a settlement known in the valley called O Whiro³². There was no specific evidence as to its exact location. Ms Te Maiharoa-Dodds said it was sited in the Waiareka Valley *"at the south-east extremity of the geological limestone formation referred to Te Ana Raki"*.³³ Mr McAnergney said it *"lay at the south-east extremity of a geological limestone formation adjacent to the mountains of Meihana Te Kakarui"*.³⁴

[83] Mr McAnergney considered the Holcim site might have supported a settlement related to the wananga O Whiro. It was his concern that:

It is the possibility of damage unintentional, intentional or even wilful that concerns Waitaha. This needs to be emphasised because it is the intention of Waitaha as an entity to record for prosperity the remembered secrets of their symbols before more destruction or desecration occurs and before the last knowledge holders pass on.³⁵

[84] Ms Symon told us that there is no archaeological evidence of large-scale permanent Māori occupation in the Waiareka Valley³⁶. The area around Te Ana Raki massif has, according to Ms Symon, been extensively surveyed. We are satisfied that any such a settlement was not on the proposed cement plant site³⁷.

[85] Waitaha maintained that the proposed site is within an area that is waahi tapu. Mr Bray referred us to the Historic Places Act definition which he said is considered by Waitaha to adequately describe Te Ana Raki:

³⁰ EIC, paragraph 3.3.

³² See Te Maiharoa-Dodds, EIC, paragraph 4.3; McAnergney, EIC, paragraphs 3.7 and following.

³³ EIC, paragraph 4.6.

³⁴ EIC, paragraph 3.7.

³⁵ EIC, paragraph 3.3.

³⁶ EIC, paragraph 3.3.

³⁷ While Mr Higgins did not specifically mention O Whiro he was satisfied that the accidental discovery protocols for the site addressed the possibility of any find sensitive to Māori.



Waahi tapu means a place sacred to Māori in the traditional, spiritual, religious, ritual or mythological sense.³⁸

[86] We were first advised specifically that the escarpment of Te Ana Raki is considered waahi tapu in the opening statement of Mr Bray. He said:

Waitaha are also aware of the principles of "Waahi Tapu" to which they consider the escarpment of Te Ana Raki to be.

However none of the Waitaha witnesses addressed the issue in their evidence in chief.

[87] Ms Mantell, who gave evidence from the Ngai Tahu perspective, was the first witness to address waahi tapu. She expressed the view that:

The rock art sites near the cement plant site are waahi tapu, but the plant site itself is not.³⁹

This is the only mention of waahi tapu in the evidence that was exchanged. Neither Ms Olsen, Ms Te Maiharoa-Dodds, Mr McAnergney, nor Mr Bray took exception to, or challenged, Ms Mantell on the statement. Nor was she cross-examined on it.

[88] The next we heard of waahi tapu in the evidence was during Mr Bray's examination of Ms Olsen. The following exchange took place:

Mr Bray: Just one final question, whaea. Do you consider the Te Ana Raki escarpment to be a waahi tapu?⁴⁰

Mrs Olsen: I most certainly do.

Mr Bray: Kia ora. And what about the surrounding area?

Mrs Olsen: Yes, sir, I most certainly do.

Mr Bray: Thank you, whaea. I wish you to remain there, other counsels may wish to examine you. Kia ora, thank you, Your Honour.

No explanation or reasons were given.

³⁸ Section 2.

³⁹ EJC, paragraph 54.

⁴⁰ Transcript, page 763, lines 14-24.



[89] Mr Logan during his cross-examination attempted to elicit from Ms Olsen a factual foundation for her assertion:

Mr Logan: In answer to Mr Bray you said the proposed cement plant site was waahi tapu?

...

Mr Logan: Can you explain why it is regarded as waahi tapu?

Mrs Olsen: It is the method of use by the karai puna that gave it its distinctive unique identity.

...

Mr Logan: What use was made of that area that renders it waahi tapu?

Mrs Olsen: The ahi-kaa-roa activities of Waitaha. And ahi kaa roa means unbroken activities since the arrival of Waitaha on this island.

Mr Logan: Is there anything that distinguishes that yellow bordered area from the rest of the valley as we see it in photographs?

Mrs Olsen: When I look at that, sir, I see the whole.

...

Mr Logan: Which would make the whole of the valley waahi tapu?

Mrs Olsen: I am quite well aware of a need to have more discrete areas registered waahi tapu, and it would have to go before Te Runanganui to discuss any place outside of the Holcim site that we are discussing here today.

There will be some areas that would be what I would call "noa" and safe to spread a town, for instance – activities that way – provided the non renewable resources, and I include our spiritual resources, were not disturbed.⁴¹

[90] The next occasion it was raised in the evidence was during Mr Bray's examination of Ms Te Maiharoa-Dodds:

Mr Bray: Kia ora, whaea. Do you consider the escarpment and surrounding areas to be a waahi tapu?

Ms Te Maiharoa-Dodds: Absolutely.⁴²



Again no factual foundation was given.

[91] In the memorandum of further particulars filed by the Trust Board on 27 June 2008⁴³, paragraph 5(e) states:

Urupa site

- (i) There is a sacred urupa (Kueimata) situated in the area upon which Holcim proposes to build its cement plant and conduct its supporting quarrying activities. Kueimata is tapu.
- (i) Disturbance of the urupa and koiwi therein will have significant adverse effects both spiritually and culturally on the Waitaha people and on those who disturb these sites without the permission of the Tipuna of Waitaha.

[92] No evidence was adduced by Waitaha to support the contention of an urupa situated in the proposed site area. The only witness who addressed the issue was Mr Higgins. He said:

I am unaware of any evidence to suggest there is an urupa on the cement plant site, and I consider that if the Trust Board has such evidence of an urupa they should make this known. There is always the possibility that an individual burial may have taken place on the site. Te Runanga o Moeraki, and I as a person of Waitaha descent, am satisfied that the accidental discovery protocols, which contain special protocols in the event that suspected koiwi tangata are discovered, address this issue.⁴⁴

Mr Higgins was not cross-examined on this matter. Nor was any evidence adduced to contradict Mr Higgins.

[93] There were veiled references to a find of sensitive material on the escarpment during Mr Bray's questioning of Ms Te Maiharoa-Dodds, but the witness was reluctant to give details. Further, Ms Te Maiharoa-Dodds did not wish, for reasons that were sufficient for her, to disclose more about "sensitive material" on or in the vicinity of the site. Similarly the unnamed Waitaha elders whose opinion Mr McAnergney cited, did not give evidence before the Court.

⁴³ A memorandum filed in response to a direction from the Court for the section 274 parties to specifically address their contested issues.
⁴⁴ paragraph 5.5.

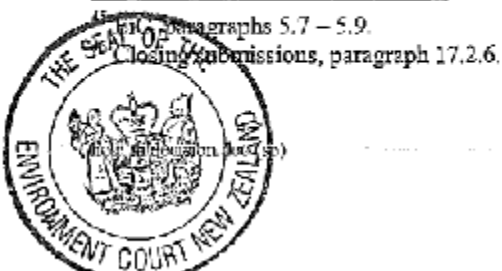
⁴⁵ *Ngāwhiri* decision.doc (sp)



[94] Ms Te Maiharoa-Dodds told us of an aetiological legend concerning the limestone features of the Waiareka Valley. It is that when Papatuanuku was weak and suffering, her daughter Hinetuahanga, whom Waitaha regard as an ancestress, sacrificed herself to give strength to her mother, becoming her mother's backbone, thus forming the white stone found in these rock outcrops including Te Ana Raki. She considered the extraction of limestone proposed the equivalent of removing Papatuanuku's backbone and rendering Hinetuahanga's sacrifice in vain⁴⁵. We acknowledge Waitaha's concerns. We note that the consent for limestone extraction, which produces this effect, is not under appeal. An aetiological legend does not necessarily infer a waahi tapu site. Further, the legend was not specifically linked to a particular waahi tapu site.

[95] The assertions made by Ms Olsen and Ms Te Maiharoa-Dodds in response to leading questions from Mr Bray – the representative of the other Waitaha section 274 parties – do not in our opinion lay a sufficient factual basis upon which we could determine that the proposed cement plant site was waahi tapu. Nor does the response “the ahi-ka-roa activities of Waitaha” justify such a determination. As Mr Logan points out there is no evidence of recent Waitaha association with the land. The fires of occupation have not been kept alight⁴⁶. Nor does the unsubstantiated statement that a sacred urupa is situated on the Holcim site or veiled references to a find of sensitive material on the escarpment justify such a determination.

[96] The archaeological sites have been given some life from the stories we have heard – albeit of a generalised nature and often not based on any concrete facts. We bear in mind that facts are surprisingly delible and over 500 years a lot of them fade away. There is a temptation to speculate when stories are not based on hard facts. Even the most careful historian sometimes converts a supposition into something like a certainty. The urge to switch from the subjunctive to the indicative is a powerful one. Hence the Court cannot rely on assertions alone. Something more specific needs to be established to justify finding that the proposed plant site is waahi tapu. Waahi tapu is an important concept, it means a place sacred to Māori. The consequences of finding that a place is waahi tapu are considerable.



[97] We find that the individual rock sites are waahi tapu, as all of the Māori witnesses who addressed waahi tapu were of the same mind. They are also considered waahi tapu in the Kai Tahu ki Otago Resource Management Plan.

[98] The Historic Places Act also defines:

Waahi tapu area as meaning:

...an area of land that contains one or more waahi tapu.⁴⁷

We are satisfied on the evidence of Ms Mantell and Ms Symon that the plant site is not within such an area. Notwithstanding, we find that early Māori had a long and close association to the escarpment and to the area, an association which requires to be carefully considered under section 6(e) of the Act.

Will the Māori values identified be affected, and if so, to what extent – and does the evidence give rise to section 6(e) and section 6(f) matters?

[99] We have combined issues 5(b) and (c) of the Statement of Issues as they overlap. We identify the Māori values to be discussed under this sub-issue as:

- (i) Consultation – although not specifically mentioned in the statement of issues, it was raised by Mr Bray and some of the witnesses and it is relevant to section 8 of the Act. We therefore discuss this matter for completeness;
- (ii) Rock art and waahi tapu;
- (iii) Section 6(e) of the Act; and
- (iv) Section 6(f) of the Act – historic heritage landscape.

Consultation

[100] Members of Te Runanga o Moeraki first met with Holcim in April 2006 and thus began the process of formal consultation, a process which has continued culminating with



a memorandum of understanding. It is still continuing. The Runanga is satisfied with the consultation undertaken⁴⁸.

[101] Holcim and the Runanga together commissioned a Cultural Impact Assessment of the effects of the proposed cement plant and associated activities⁴⁹. It addressed issues of concern to the Runanga including the effects of the proposed plant and quarries on the Waiareka Creek, Mahika Kai, cultural landscapes and waahi taoka, and the air and atmosphere. Following consultation between the Runanga and Holcim, including development of conditions of consent and the memorandum of understanding, the Runanga are satisfied that the cultural issues have been addressed satisfactorily⁵⁰.

[102] We are satisfied on the evidence of Ms Mantell and Mr Higgins that satisfactory consultation was carried out with Te Runanga o Moeraki. Having regard to section 15(2) of the Te Runanga o Ngai Tahu Act, it is not surprising that Holcim contacted the Runanga. It is, however, clear from the joint submissions filed with the section 274 notices, that the Waitaha section 274 parties are dissatisfied with the consultation that took place between Holcim and Ngai Tahu as they were not included. In fact it became apparent during the hearing that the issue is more deeply seated, and that those of Waitaha descent who exclusively belong to either or both of the section 274 parties, consider that Te Runanga o Ngai Tahu does not have authority to speak for Waitaha – a matter that, as we have already said has been the subject of litigation⁵¹.

[103] It was submitted by Mr Bray that the consultation process was inappropriate to the tikanga/kawa of Waitaha. This was because there are members of Waitaha who by their own choice are not registered with the Te Runanga o Moeraki⁵². We are unable to accept that argument for the following reasons:

- (i) It was perfectly understandable having regard to the provisions of the Te Runanga o Ngai Tahu Act that Holcim and the Councils should approach Te Runanga o Moeraki as the representative of Ngai Tahu;

⁴⁸ Mantell, EIC, paragraphs 3.6 and 3.7.

⁴⁹ Appended to the EIC of Ms Mantell.

⁵⁰ Higgins, EIC, paragraph 3.2.

⁵¹ See *Waitaha Taiwhenui o Waitaki Trust and Anor v Te Runanga o Ngai Tahu and Anor*; CP 41/1998, 17 June 1998, High Court, Christchurch, Parckhurst J.

⁵² Closing submissions, paragraph 4.2.



- (ii) If those Waitaha not registered wished to be involved in the consultation it was incumbent on them, if they had notice of the application, to appraise Holcim and the Councils of their interest;
- (iii) It is clear on the evidence, that the section 274 parties had notice. Ms Te Maiharoa-Dodds sent Holcim a facsimile on 17 June 2006, six weeks after the project was publicly announced, asking whether Te Runanga o Moeraki had been notified of the project. She was sent a reply by Holcim on 18 June 2006 confirming that Holcim are consulting with both Te Runanga o Moeraki and Te Runanga o Ngai Tahu and that a Cultural Impact Assessment would be undertaken. Ms Te Maiharoa-Dodds acknowledged receipt of Holcim's facsimile by a facsimile dated 20 June 2006. The correspondence is attached to the rebuttal evidence of Mr Cowie.

In Ms Te Maiharoa-Dodd's facsimile of 20 June 2006 she said:

I do appreciate and acknowledge your prompt response to my enquiry.

May the Cultural Impact Assessment be of benefit to your company, Te Runanga o Moeraki and the whenua (land).

Ms Te Maiharoa-Dodds did not suggest that Holcim should consult with Waitaha. We also note that Ms Te Maiharoa-Dodds has been chairperson of the Trust Board since August 2007. Prior to that time she had been secretary of the Trust Board since 1999.

- (iv) The first indication that Holcim had of the non-registered Waitaha's interest was the filing of the section 274 notices filed in April, May and August 2008.
- (v) Following receipt of the notices, Holcim have attempted to work with the Trust Board⁵³ in an endeavour to identify their issues but they have been unwilling to co-operate.



⁵³ Rebuttal, paragraphs 3.7-3.9 and paragraph 4.5.

[104] In all the circumstances we find that Holcim and the Councils have fulfilled their obligation to consult.

Rock art

[105] Ms Amanda Symon is a consulting archaeologist for Te Runanga o Ngai Tahu and employed as curator of the Ngai Tahu Māori Rock Art Trust⁵⁴. She told us that the area around the Te Ana Raki massif has been extensively surveyed. Thirteen rock art sites are located in and around the Te Ana Raki massif on land owned by Holcim. None of the rock art sites lie within the footprint of the proposed area of development. It was her opinion that the probability of finding more rock art sites in that area is extremely low.

[106] During cross-examination by Ms Forret, Ms Symon made it clear that her evidence was limited to the archaeological findings and inferences that can be drawn from those findings. She being Pākehā, left the traditional Māori perspective to others⁵⁵. Ms Symon addressed in some detail the protection of the rock art sites from potential effects that could arise from the proposed development including:

- (i) emissions;
- (ii) dust;
- (iii) vibration;
- (iv) micro climate change;
- (v) changes in hydrology; and
- (vi) subsidence/de-estabilisation.

[107] She concluded that the potential effects could be satisfactorily addressed by the agreed conditions of consent which include careful monitoring, a rock art management plan and a discovery protocol.

[108] Ms Te Maiharoa-Dodds addressed the rock art from the Waitaha perspective. She said:

⁵⁴ The only organisation solely focussed on the management and protection of Māori rock art in New

Zealand. See transcript, page 394 and 395.



Our history is embedded in the land. The historical value and the named peaks and landscapes is of great significance in Waitaha ancestral history. It was the people who came with Rakaihautu and their descendants who began the tradition of executing their art on sheltered cliff faces as they journeyed throughout the land. These ancient rock drawings are known to us as Te Ana Whakairo.⁵⁶

[109] She emphasised that the sensitivity of the area with respect to matters sacred to the Waitaha was not adequately addressed by the Council when making its initial assessment of the proposal⁵⁷. We note that the Council had no submissions from Waitaha to assist it to do so.

[110] Mr Higgins did not agree with Ms Maiharoa-Dodds. He was satisfied that the conditions of consent would avoid damage and that the cement plant, the quarries and the surrounding area, have been extensively surveyed and that the accidental discovery protocols provide for the possibility of new sites being discovered during the course of construction.

[111] We are satisfied on the evidence that the rock art sites have special significance to Māori, particularly early Māori which were Waitaha. That special significance is acknowledged by all the Māori witnesses. They all consider the sites to be waahi tapu. We are satisfied particularly on the evidence of Mr Higgins, Ms Symon and Ms Mantell, that the rock art sites will not be directly affected by the proposal. The conditions agreed to between Te Runanga o Moeraki and Holcim will in our view adequately protect the rock art sites. This includes careful monitoring and a rock art management plan that is sufficiently flexible to enable appropriate action to be taken in the event of any adverse effects being noted.

Section 6(e) of the Act

[112] As we have said, the Waiareka Valley and in particular the Te Ana Rakī massif was and still is of considerable cultural importance to Māori. Its importance was stressed and emphasised by all of the Māori witnesses. Clearly section 6(e) applies. This is recognised by Holcim and the Council. That recognition has been provided for by a detailed number of conditions that have been drafted after considerable consultation between Holcim, the Council and Te Runanga o Moeraki.

⁵⁶ E.C., paragraph 4.2.
⁵⁷ E.C., paragraph 5.3.



[113] Mr Higgins said:

As a person of Waitaha descent I consider that all of the issues raised by the Trust Board have been considered by Te Runanga o Moeraki in its preparation of the Cultural Impact Assessment and participation in consultation, and have been subsequently addressed by conditions of the consents. I have extensive knowledge of the histories of the area and am not aware of the cement plant site being an urupa.⁵⁸

[114] We are satisfied that those conditions of consent, that have been carefully considered by the parties, adequately recognise and provide for the relationship of Māori and their culture with their ancestral land. Processes for the ongoing relationship with Holcim and Māori are provided by the conditions of consent. This leaves the issue as to whether or not Waitaha who are not registered with Ngai Tahu are adequately represented, a matter which we discuss later.

Historic heritage landscape – section 6(f) of the Act

[115] Ms Mantell referred in some detail to the cultural landscape objectives and policies in the Kai Tahu Management Plan. She then said:

Although the landscape has been modified from that which existed in the past, the entire area remains a valued cultural landscape due to the previous importance of the area to Kai Tahu. As well as individual sites, the relationship between sites and the broader landscape are important. In the past, Kai Tahu used markers in the landscape such as peaks and hills, to identify their trails, and a number have been given names that remember ancestors. The land owned by Holcim is part of this wider landscape and contains a number of rock art sites, however it is not anymore significant than any other part of the wider landscape.⁵⁹

[116] She did not attempt to elevate the cultural landscape perspective to a matter of national importance under either section 6(h) or section 6(f). She was satisfied that the agreed conditions of consent arrived at after consultation would meet the Runanga's concerns.

[117] The Waitaha witnesses referred to Waitaha's historical connection to the land. As Ms Te Maihara-Dodds put it, their history is embedded in the land. The historical value

⁵⁸ Higgins (March 2009), paragraph 6.4.
⁵⁹ Higgins, paragraph 5.5.



in the named peaks and landscape is of a great significance in Waitaha's ancestral history⁶⁰.

[118] We have already referred in some detail to the Waitaha witnesses' reference to their association with the land and waahi tapu. Clearly they attributed greater significance to the Te Ana Raki massif than the Ngai Tahu witnesses.

[119] We have no doubt that Waitaha, and Māori in the wider tribal affiliations, have a special attachment to the escarpment and the valley. That attachment to the land exists, notwithstanding the modified nature of the landscape. Specifically, the identified archaeological sites provide explicit evidence of the use of the land by Māori, evidence that Ms Symon told us does not suggest large-scale occupation. The archaeological evidence supports the accounts of early surveyors and explorers that the valley formed part of a traditional routeway. It also supports the use of the valley as a resource gathering area.

[120] Having carefully considered all of the evidence, we are satisfied that the relationship of Māori with the escarpment and the valley is a significant element in this case. We find that the Māori relationship and their culture and traditions with the Te Ana Raki massif and the valley have been recognised and provided for in the consultation culminating in the agreement with Te Runanga o Moeraki, and in particular the provisions in the consent relating to the preservation of rock art sites.

[121] We find that the proposal is not inappropriate in terms of section 6(f) from a Māori perspective for a number of reasons including:

- (i) none of the recorded archaeological sites in the area will be directly impacted on;
- (ii) the footprint of the proposed area of the development has been adjusted, after consultation with Māori, where necessary, so as not to directly impact upon any of the thirteen rock art sites located in and around the Te Ana Raki massif on the area of land owned by Holcim;



- (iii) the area around the Te Ana Raki massif has been extensively surveyed and it is extremely unlikely that more sites could be found;
- (iv) while there is the potential for two of the rock art sites to be damaged by dust this is addressed in the conditions of consent which provides for a rock art management plan to be prepared in consultation with Te Runanga o Moeraki and the Ngai Tahu Māori Rock Art Trust;
- (v) while one cannot categorically exclude the potential for further subsurface archaeological deposits to be present within the boundaries of the development this is addressed in the conditions of consent; and
- (vi) the proposed "heritage and archaeological" conditions (A23.1-A23.9); "rock art" conditions (A24.1-A24.5) and the accidental discovery protocol *will ensure that potential impacts will be kept to a minimum.*

What body is appropriate for consulting on iwi issues?

[122] We have already referred in some detail to the consultation carried out by Holcim and the Council with Te Runanga o Moeraki culminating in agreed conditions of consent and a memorandum of understanding. Mr Higgins told us that the Runanga are satisfied that all of the issues raised in Ngai Tahu's submission have been satisfactorily addressed in the conditions of consent and the memorandum of understanding⁶¹.

[123] Ms Te Maiharoa-Dodds contended that the sensitivity of the area with respect to matters sacred to Waitaha was not adequately addressed by the Council when making its decision. She said:

...Ngai Tahu's knowledge of the use and occupation of this area by Waitaha prior to the time of Ngai Tahu's migration south is limited and in many cases absent⁶².



She asked the Court to impose conditions requiring the participation of the Trust Board in the creation (and ongoing operation) of any management plan for the site that relate to cultural issues⁶³.

[124] Ms Olsen was also not satisfied with the Runanga representing Waitaha⁶⁴. She told us that Waitaha is the iwi community visibly active in this part of the Waitaki District. She emphasised that Waitaha was included into Ngai Tahu as part of the primary iwi settlement with the Crown against its wishes. She said:

Waitaha saw that settlement as the Crown effectively demoting Waitaha as a primary iwi down to hapu status as a way of ending the dispute. Waitaha continues to consider itself the indigenous traditional identity but in the Ngai Tahu settlement that traditional role is clashing with modern legal constructs. The result is that Waitaha's stories and knowledge of this area is not being heard. There is no formal line of communication between Waitaha and Moeraki Runanga. Therefore, there is no formal line of communication with Ngai Tahu⁶⁵.

[125] Ms Olsen pointed out that within Waitaha there is now some political disagreement as to the best way to protect their assets and resources. Some want the resources managed through the Runanga system, while others wish to have the whanau or hapu being responsible to maintain ahi kaa roa.

[126] Mr McAnergney expressed the view that legislation and the attitudes of authorities has kept Waitaha excluded from any involvement. He emphasised that Waitaha is not prepared to be kept at bay from the archaeological sites of their ancestors⁶⁶. His opposition to a Ngai Tahu representative representing Waitaha was encapsulated in the following passage of his evidence in chief:

After all conquerors do not as a rule record or acknowledge the histories of the conquered, and archaeologists appear to ignore indigenous peoples and their oral histories. Thus, Waitaha is not satisfied with conditions that speak of adherence to accidental discovery protocols because Waitaha is not prepared to ever accept cultural oversight or relocation of koiwi remains by Ngai Tahu people⁶⁷.

⁶³ EIC, paragraph 5.114.

⁶⁴ EIC, paragraphs 2.1 and following.

⁶⁵ EIC, paragraph 2.3.

⁶⁶ EIC, paragraphs 4.2 and 4.3.

⁶⁷ EIC, paragraph 4.3.



[127] In response, Mr Higgins was categorical that the Moeraki whanui, through Te Ruanga o Moeraki, is the appropriate and only representative of Māori. He told us he could trace his ancestry to the early Waitaha people and said:

As a person of Waitaha descent I consider that all of the issues raised by the Trust Board have been considered by Te Ruanga o Moeraki in its preparation of the Cultural Impact Assessment and participation in consultation, and have been subsequently addressed by conditions of the consents.

...Te Runanga o Moeraki state categorically that we are the statutorily recognised body capable of representing Waitaha and Ngai Tahu interests in our tākiwa. Te Runanga o Moeraki is the body that will be working with Holdco to prepare the management plan.⁸⁸

[128] He stressed that Waitaha and Ngai Tahu are one people and that pursuant to the Te Runanga o Ngai Tahu Act 1996 (section 2) and the Ngai Tahu Claims Settlement Act 1998 (section 9) the Ngai Tahu whanui includes the hapu of Waitaha. The hapu interests which the Trust Board purports to represent are represented by Te Runanga o Ngai Tahu and Te Runanga o Moeraki. He said:

I am unaware of any one alive today who can claim to descend by whakapapa from only one of the four tribal groups that I have described above (Te Rapuwai, Waitaha, Kati Mamoe and Kai Tahu). I consider that a person's decision to select one tribe above another demeans the mana and even the existence of many of their ancestors.

And:

I wish to state categorically and in this public forum that this tākiwa remains the domain of Moeraki whanui, who are kaitiaki for the area in which the proposed development is sited.⁸⁹

[129] We are thus faced with a clear divergence of opinion as to the appropriate body to represent Waitaha. There was also a clear divergence of opinion within Waitaha as to the body that should represent them. Those of Waitaha descent who have not registered with Ngai Tahu are demonstrably opposed to the Runanga of Ngai Tahu representing them. Then there are those of Waitaha descent who have embraced the Ngai Tahu whanui. For the latter there is a structure and process for any concerns to be heard. For the former that process is also available, but they have chosen not to embrace it. The question is



should we make provision for them to be separately represented in the conditions of consent?

[130] Mr Higgins was opposed to the suggestion of another legal entity being included in the conditions of consent. He said:

There is a strong and I would suggest proactive process by which individuals can partake in Runanga activities and we can canvass their views monthly, or in fact bi-monthly as at present.

And:

It is incumbent upon individual members to be present at a bi-monthly Runanga meeting scheduled bi-monthly for that purpose, and the views of all those who whakapapa to Moeraki can be heard at that time on any issue."

[131] While we acknowledge the sincerity of the Waitaha witnesses and to some extent sympathise with them, we nevertheless agree with Mr Higgins for the following reasons:

- (i) It is not appropriate for this Court to have to decide the iwi political differences as to who should be their appropriate representative;
- (ii) The Māori Land Court is empowered to decide the issue under the Te Turi Whenua Māori Act;
- (iii) Such a determination by the Māori Land Court would require much more detail than the evidence that was presented to us;
- (iv) The Government has incorporated Waitaha within the Ngai Tahu whanui under the Treaty of Waitangi Act 1975;
- (v) Following that settlement the Government has given effect to a tribal structure to enable Ngai Tahu to manage its assets and business and to distribute benefits to its tribal members under the Te Runanga o Ngai Tahu Act 1986;
- (vi) To interfere with the structure that has been put in place as part of the Waitangi Treaty Settlement would require compelling evidence that the structure put in place was wrong – evidence that, in our view, was not presented to us;
- (vii) For this Court to interfere in such a delicate situation for Māori would be insensitive to a situation which needs to be resolved for Māori by Māori;



- (viii) To acquiesce to Waitaha's request would put in place not just a bilateral structure, but a structure which is likely to result in rivalry between Māori parties, that would create difficulties not just for Māori but also for Holcim and the Council; and
- (ix) As Mr Higgins told us there is already a proactive process by which individuals can partake in Runanga activities.

Landscape effects

Landscape and visual amenity effects

[132] The parties identified the following areas of dispute in terms of landscape and visual amenity:

- (a) is the Whitstone Escarpment an outstanding natural feature in terms of section 6(b)?
- (b) is the plant site part of an outstanding landscape in terms of section 6(b) because of heritage (including tangata whenua/cultural elements) in that landscape?
- (c) what effects are there on landscape/visual amenity values? Will those effects be appropriately avoided, remedied or mitigated by the conditions proposed?
- (d) to the extent that section 6(b) applies, is the cement plant an inappropriate development on the site?

We identify a further issue between the parties concerning the extent of the Whitstone Escarpment feature. A determination of this issue will influence the extent to which a particular policy and a set of assessment criteria concerning Significant/Outstanding Features and Landscapes apply to the proposal.

[133] In dealing with these questions we were assisted by the evidence of three landscape architects, Mr A M Rackham called by Holcim, Mr G H Densem called by the Waitaki District Council, and Mr R F W Kruger called by the Waiakeka Valley



Preservation Society Incorporated. To the extent that consideration of tangata whenua values or the historic associations of the land are important for our determination of these matters we record that we were also assisted by a number of specialist and lay witnesses called by Holcim, the Waiareka Valley Preservation Society, and the two Waitaha parties.

Is the Whitstone Escarpment an outstanding natural feature in terms of section 6(b)?

[134] The Whitstone Escarpment rises steeply almost immediately to the north-east of the cement manufacturing plant site. It is one of a series of limestone features running from Fortification Hill in the south-east and including Te Ana Raki cliff to the north of the site. Other outcrops of limestone including Elephant Rocks near Tokarahi occur further inland some distance from the site. The escarpment stretches over a distance of around three kilometres. Immediately behind the proposed plant site it varies in height between 173 and 185 metres above sea level (masl). It is identified by Variation 2 to the Waitaki District Plan as a significant natural feature, an identification supported by Mr Rackham and Mr Densen. Mr Kruger considers that the identification does not do justice to the feature. In his view it is outstanding.

[135] In considering whether or not landscapes or features are outstanding, it has been customary over the past decade for landscape architects and the Court to consider various elements of the landscape under a series of heads identified in *Wakatipu Environmental Society Incorporated v Queenstown Lakes District Council*⁷¹, and sometimes referred to as the modified Pigeon Bay criteria or factors. We indicate that we consider the term factors much more appropriate. They are a series of elements which help to ensure a full understanding of the landscape the Court is dealing with, not a series of criteria according to which some rating in one or more results in a landscape becoming outstanding. It is still necessary to stand back and ask the question "does this landscape or feature stand out among the other landscapes and features of the district?". We refer to the salutary comments of the Court in *Unison v Hastings District Council*⁷², warning against a mathematical or mechanical approach to applying the modified Pigeon Bay factors. This appeared to be the view of all the landscape architects in this case. To ensure we understand the feature with which we are dealing, and since it is the approach of two of



the landscape architects who gave evidence, we consider the Whitstone Escarpment under the heads set out in the *Wakatipu Environmental Society* case.

Natural science values

[136] The limestone features of North Otago result from calcareous shells of sea creatures falling to the bed of the sea 30-40 million years ago. This sediment subsequently hardened, and was lifted above sea level. Where escarpments are now seen, ancient rivers, sometimes no longer extant, carved a passage through the rock⁷³. There is no doubt that the process by which the escarpment was formed is of scientific interest, and Mr Kruger referred us to the comments of the ABE that:

[o]n a national or South Island scale surface limestone areas are relatively uncommon and widely distributed⁷⁴.

He considered the escarpment the largest and most impressive part of an 18-20 kilometre formation which is the eastern boundary of the Waiareka Valley.

[137] Nevertheless on the district-wide scale on which we are required to make an assessment, the Whitstone Escarpment is one of a number of such features. Mrs E J McCone, a former high-school teacher with tertiary qualifications in geography and a former district councillor, referred us to impressive limestone formations at Island Cliff and Duntroon, and 60 kilometres of limestone bluffs stretching from Kakanui through Island Cliff to the Hakataramea Valley⁷⁵. We refer also to limestone features at Elephant Rocks near Tokarahi, Raki's Table, cliffs north of the Ngapara settlement and those close to Duntroon. We comment later on the relative qualities of these features and those of Whitstone Bluff. Suffice it to say that from a geological point of view there are other clear and impressive examples of limestone formations in the district.

[138] In terms of vegetation, while much of the area has been modified by grazing there is on the escarpment an area of relatively dense bush containing species typical of a modified limestone community. There are a small number of common species and there is little habitat cohesion. However, the ABE notes that the bush area represents an historic vegetation cover on a landscape where even such simple and minor

⁷³ Kruger, EIC, paragraph 44 citing the evidence of Ms Lucas at the primary hearing.

⁷⁴ McCone, EIC, paragraph 61.

⁷⁵ McCone, EIC, paragraph 17.



representative indigenous elements are largely missing. This vegetation clearly adds to the scientific value of the feature. We record that no party suggested it was of such significance that section 6(c) of the Act should be invoked.

[139] At the southern end of the feature, near the existing lineworks the site contains an international important fossil site known as the Cormacks Siding Eocene site.

Legibility

[140] Mr Kruger cited the evidence given by another landscape architect, Ms D Lucas, at the first instance hearing:

The scarp and dip slope landforms are highly legible in the Oamaru area landscape (attachments 2 and 3). The scarps with their bluff formations, erratics and steepness are highly legible. The exposed limestone contrasts with soil and vegetation-covered lands. The degree and length of exposure is displayed through the apparent whiteness or greyness of the stone. Any associated vegetation informally contributes to the contrast the scarp lands display to the mesa above or valley floor below.

Mr Kruger added his own opinion that the escarpment became even more legible in conjunction with other landforms of the same volcanic sedimentary type⁷⁶. Ms Lucas was not called as a witness by any party and thus her opinions were not subject to cross-examination, but when asked, Mr Kruger conceded that in terms of legibility Elephant Rocks and the Valley of the Whales, and more generally the sites up and over the valley towards Duntroon, are more expressive in explaining the scientific processes and the formations that result from them⁷⁷. That may be significant to a determination of whether a feature agreed to possess those qualities that make it significant has them to the degree that justify a classification as outstanding.

Aesthetic values

[141] The escarpment features prominently in views in an enlarged quadrant to the west of the site, stretching from the southwest to the north of the site, but is undetectable from the south and east. Mr Kruger notes the contrast between the steep slopes of the limestone feature and the gentler undulations close to its base, a contrast reinforced by



the distinction between the natural lines of the escarpment face and the more orderly lines associated with agricultural use. He also considers that for road users travelling from Oamaru, passing between the Whitstone Escarpment and Fortification Hill marks a transition from the coastal – and urban – environment of Oamaru to a rural, inland environment⁷⁸.

[142] We also consider it significant in aesthetic terms that Mr Kruger accepted that the area beyond Ngapara and into the Macrewhenua Valley is more spectacular or interesting in terms of explaining those features to tourists and creating immediate interest. We also note Mr Densen's evidence on the experience of passing through the Weston gap. He told us that those travelling through it would not be conscious of Fortification Hill to the rear. Rather they would experience the opening out of a rural valley which is suddenly expansive. In his view the experience would be interesting and enjoyable, but not particularly profound⁷⁹. We agree with that. In aesthetic terms the Whitstone Escarpment is significant in setting a boundary to the Waiareka Valley and is aesthetically pleasing. To quote Mr Densen again it is a memorable natural landmark. But its aesthetic qualities are not such as to elevate it to outstanding status.

Tangata whenua values

[143] The tangata whenua values and the importance of the features to tangata whenua are important elements in two other factors – the shared and recognised values and the historical association of the escarpment. We have already explored in some detail the evidence relating to the relations with Māori to the escarpment and the Waiareka Valley.

[144] We summarise our findings:

- (i) The valley was used as a trail between coastal Kaika and traditional mahika kai gathering areas;
- (ii) The area between the Kakanui and Waitaki Rivers is rich in archaeological sites including rock art sites;



⁷⁸ Kruger, p. 116, paragraph 76.
⁷⁹ Densen, transcript page 613, paragraph 6.24.

- (iii) There are 13 rock art sites on the Holcim land located either in rock shelters formed in the outcropping limestone or on detach boulders which had fallen from the escarpment. It is a reasonable inference to draw from the descriptions of the rock art sites that they were used as resting places by Māori travelling from the coastal Kaitake to their traditional mahika kai gathering areas and may well have been part of the Waitaha Wananga system scattered throughout the valley;
- (iv) The rock art at Te Ana Raki is both prolific and distinctive in contrast to many South Island rock art sites which are fragmentary and faint;
- (v) We were told of an aetiological legend of the sacrifice of Hineteuwhangā to give strength to her mother Papatūmānuku thus becoming her mother's backbone and forming the whitestone by which Oamaru is known;
- (vi) We were also told of a settlement area O Whiro, the location of which is uncertain. We are satisfied however that no settlement existed on the proposed cement site; and
- (vii) We find that the rock art sites are waahi tapu but there was not sufficient evidence to establish any other waahi tapu sites in the vicinity.

[145] We have found that Te Ana Raki is a place of considerable significance for Waitaha, and for Māori generally.

Historical associations of the escarpment

[146] Mr P G Petchey, an archaeologist with extensive experience in New Zealand and Asia who was called by the applicant, identified, in addition to the sites of importance to tangata whenua, a number of sites of historical interest in the vicinity of the application site. Immediately to the north of the site of the proposed cement plant is land on which an early run-holder, James Hassall, built a homestead in the 1860s. All that remains of the original homestead are a woolshed and a limestone stable along with a cedar and two walnut trees associated with the homestead planting. To the immediate east of this site is the formation of the Ngapara branch railway line, closed in 1959. The formation includes



the Lorne siding. Two stone culverts are to be found in the formation in the area of the proposed plant site⁸⁰.

[147] On the top of the escarpment is a large limestone slab with numerous names and dates carved into its face. The earliest recognisable inscription reaches back to 1907. Further north, in the area where the escarpment turns east, is a roughly constructed dry-stone wall, probably erected by farm labourers. This runs intermittently for a distance of some 400 metres. There are a number of limestone blocks which were used as fence-strainer posts, some dating back to the 1930s⁸¹.

[148] On the west side of the Weston-Ngapara Road to the west and directly opposite the site are two memorial oaks, planted as a memorial to two soldiers killed in the First World War. Such oaks are a feature of the North Otago countryside, 400 being planted, each near the home of a fallen soldier. Also on the west side of the road, on land owned by Holeim, are a number of limestone farm buildings and the remains of the Cave Valley School which began in 1869⁸².

[149] Mr Petchey also noted that the site had long-established associations with the extraction of limestone, referring to limestone quarries at Totara, Parkside and Cormacks to the immediate south of the application site⁸³. We did not understand any party to suggest that these historical features, which are in any case human alterations to the natural feature and its surrounds, elevated its status to that of an outstanding natural feature.

[150] Mr Kruger theorised that the wider landscape of the Waiareka Valley was a designed heritage landscape. This thesis is relevant to our consideration of the status of the Whitstone Escarpment inasmuch as Mr Kruger considered the escarpment to be a focal point of that designed landscape, we presume because of its inherent natural qualities⁸⁴. For the reasons set out below we are of the view that Mr Kruger's thesis cannot be sustained.

⁸⁰ Petchey, EIC, paragraphs 4.15 and 4.16.

⁸¹ Petchey, EIC, paragraphs 4.17-4.18.

⁸² Petchey, EIC, paragraphs 4.22 and 4.4.

⁸³ Petchey, EIC, paragraph 4.3.

⁸⁴ Kruger, EIC, paragraphs 153-234.



[151] Mr Kruger's thesis, briefly summarised, is that much of the landscape of the Waiareka Valley was laid out in a manner decided upon by one of the great landowners of the early colonial period, Mr John Reid, the owner of Elderslie Estate from 1865 for the rest of the nineteenth century, in accordance with a plan drawn up by Sir Joseph Paxton, the English landscape architect and politician. He argued that the Whitstone Escarpment was the focal point of that designed landscape. The detailed evidence with which he supports this thesis is not always accurate. For example, he says of the Enfield Presbyterian Church, opened in 1878 on land donated by Mr Reid, that it offers amazing direct views of the Whitstone Escarpment – its main entrance [is] directed that way⁸⁵. As Mr M L Malcolm, a local resident who has published two books on the history of the area points out, and as we observed on our site visit, the main entrance faces in the opposite direction⁸⁶.

[152] More problematic still for Mr Kruger's thesis is the evidence of the dates on which Mr Reid began to acquire land in the Waiareka Valley. Under cross-examination from Mr Christensen, Mr Kruger accepted that Mr Reid's first land acquisition in the Waiareka Valley can be dated to 4 May 1865⁸⁷, and that his subsequent purchases of land in the area were after Sir Joseph Paxton's death on 9 June 1865. We were not persuaded by Mr Kruger's explanation that the landscape design had been undertaken prior to the purchase of the land. That could be done in terms of the design of cities, when the area of land to be occupied was known in advance. It is highly unlikely in the case of private land not known to be available to a particular purchaser. The difficulty of Mr Kruger's thesis is compounded by his view that he was unaware of any person in New Zealand able to design a landscape of the sophistication and in the detail he considers this landscape had in the nineteenth century⁸⁸. A conclusion that could be drawn is that it probably was not designed at all. We are not persuaded that the Whitstone Escarpment was a focal point of nineteenth century landscape design.

[153] Mr Kruger appended to his evidence a report prepared in 2007 for the Waiareka Preservation Society by Tasha Haines, who has master's qualifications in fine art, in which she argues that the limestone landscapes of North Otago, and in particular the Whitstone Escarpment, were a source of artistic inspiration generally, but particularly to a

⁸⁵ Kruger, EIC, paragraph 225.

⁸⁶ Malcolm rebuttal, paragraph 24.

⁸⁷ Malcolm rebuttal page 1015.

⁸⁸ Transcript page 1017.



significant New Zealand artist, Colin McCahon. Ms Haines was not called as a witness, and so her paper was not the subject of cross-examination. We are satisfied that in general terms the limestone landscapes of North Otago were an important influence on McCahon.

[154] There are two particular parts of Ms Haines' paper which refer to Whitstone. She refers to a painting of April 1950, thought by another art historian, Mr G Brown, to "have some similarity to Te Ana Raki escarpment and a similar painting of 1951 entitled North Otago landscape". She also quotes the comments of Burns Pollock, a local artist, on the subject of McCahon's interests when teaching summer school in the 1960s:

[I] was in his class once, ... I know for a fact he did some landscape drawings at Duntroon and was through our area of interest (Te Ana Raki Bluff area) several times while down here⁶⁹.

Against this we set McCahon's own words in a catalogue for the Barry Lett Galleries exhibition 'Colin McCahon' in 1967 in which he exhibited 25 paintings all titled "North Otago Landscape":

In painting this landscape I am not trying to show any simple likeness to a specific place. These paintings are most certainly about my long love affair with North Otago as a unique and lonely place; they are also about where I am now and where I have been since the time when I was in standards four and five at primary school and living in North Otago⁶⁰.

While the Whitstone Escarpment is clearly one of a number of the North Otago limestone features which impacted upon McCahon, we could not on the basis of this attachment conclude that its influence was more profound than any other.

[155] Like all natural features, the Whitstone Escarpment has historical associations, but we do not think that they are such as to elevate the feature to the point that it is outstanding.

⁶⁹ Tasha Haines, *The Artistic Significance of Te Ana Raki*, July 2007 page 8 (attached to Mr Kruger's



Shared and recognised values

[156] The community of North Otago clearly value the Whitstone Escarpment. It was the site of Waitangi Day celebrations for the community organised by the Waitaki District Council in 2008, which Ms Te Maiharoa-Dodds described as an inclusive occasion involving all ethnic groups⁹¹. Mr Kruger included in his evidence a wedding photograph taken with the escarpment in the background, rightly suggesting that people do not choose features they do not appreciate as background for the record of important events in their lives. Mr Densem however notes that the Council proposes to classify the features as a significant landscape feature in Variation 2 to the District Plan, and that no submissions seek a higher status for it⁹². Mr Kruger is right to point out that that does not finally determine the appropriate classification of the feature, but it has some relevance to the question of the value the community ascribe to it.

[157] We further note that other evidence by which Mr Kruger seeks to support a finding that the shared and recognised values of the Whitstone Escarpment are either high or very high is of a very general nature and is not specific to the feature itself. The shooting of a film at Elephant Rocks, some 25 kilometres distant, or the existence of the Vanished World Trail between Oamaru and Dunroon via the whole Waiareka Valley is not evidence that points with any specificity to the value the community places on the Whitstone Escarpment as a feature. The values of the wider valley, or of limestone features in general cannot be projected on to the Whitstone Escarpment.

Transient values

[158] There was agreement from all parties that no transient values associated with the Whitstone Escarpment take it beyond the ordinary.

Overall assessment of the Whitstone escarpment

[159] The description we have undertaken of the various factors in the Whitstone Escarpment does not of itself lead us to the view that it is outstanding rather than significant. However there is a further and important reason to place reliance on the evidence of Mr Rackham and Mr Densem rather than that of Mr Kruger. Mr Densem has



⁹¹ Ms Te Maiharoa-Dodds, transcript page 781.
⁹² Densem rebuttal, paragraph 2.71.

undertaken a district-wide analysis of the landscapes and natural features of the Waitaki District. Mr Kruger fairly acknowledges that he has not.

[160] Mr Kruger wrote:

- 132 The stand-alone ONF status is justifiable on the basis of my APBC [Amended Pigeon Bay Criteria] assessment and evaluation.
- 133 The ONL status cannot be confirmed because I have not carried out a comprehensive analysis of the entire area ...⁹³

We do not think it correct to draw this distinction. Quite simply the adjective "outstanding" implies that what is so described stands out. An outstanding natural feature must be pre-eminent among or stand out from other natural features of the district. The Whitstone Escarpment does not meet that requirement. No-one disputed, and we accept, that the feature does meet the requirement for significance.

The extent of the significant natural feature

[161] In the written evidence presented to the Court the limits of the Whitstone Escarpment as a significant natural feature were not disputed. Mr Densem told us that, when he mapped the area for Variation 2, opposite the Weston-Ngapara Road the boundary below the escarpment face had been drawn in the southern half following a fence-line above the former railway alignment and in the northern half following the alignment itself⁹⁴. On that basis the cement manufacturing plant would not be located on the feature, although the tunnel through which limestone would be conveyed to the plant would pass through it, and a conveyor belt would run over part of the natural feature from the tunnel mouth to the cement manufacturing plant. In his written evidence Mr Kruger accepted that was the case⁹⁵, and Mr Rackham gave his evidence on the same basis. The precise boundaries of the feature are of some significance because of an assessment matter in the District Plan which refers to activities located in outstanding or significant natural features. The same is true of part of a landscape policy⁹⁶.

⁹³ Kruger, EIC, paragraphs 132-33.

⁹⁴ Densem, EIC, paragraph 4.62.

⁹⁵ Kruger, EIC, paragraph 271.

⁹⁶ Assessment matter 17.2xxv Policy 16.8.3.7(e).



[162] In cross-examination Mr Somerville put to Mr Densem that "you – [in the sense of one] – could justify drawing that line even to the road". Mr Densem accepted that⁹⁷. Reading his evidence under cross-examination as a whole we have no doubt that while he accepted that there were several places in which one could choose to draw the line, he stood by the line where he had drawn it. Moreover, he was unaware of any cement plant proposal at the time he drew the line⁹⁸.

[163] A similar question was put to Mr Kruger by Mr Somerville, and Mr Kruger agreed that "the landscape unit ... rolls out at least to the Weston-Ngapara Road"⁹⁹. In re-examination of Mr Kruger, Mr Somerville put to Mr Kruger a map drawn at a scale of 1:250,000 which was part of the landscape study undertaken by Mr Densem as preparation for Variation 2. Mr Kruger deduced from this that "the boundary of that landscape, which is actually identified as a significant landscape, not a significant feature, extends all the way to the Weston-Ngapara road"¹⁰⁰. In response to questions from the Court, Mr Kruger alleged that Mr Densem had indicated a boundary for the significant natural feature of the Weston-Ngapara Road but that this had not been translated into the final version of Variation 2¹⁰¹.

[164] We note that there is a recommendation accompanying the landscape study and the 1:250,000 scale map. This was:

That the limestone features identified be accepted as significant landscape features, that boundaries be identified at a 1:50,000 scale and that the area be incorporated into the District Plan.

We also note that at this stage the suggestion that he had changed his mind was not put to Mr Densem and that Mr Rackham was not questioned on the boundaries of the feature.

[165] When recalled by the Court, Mr Densem indicated that the boundaries as seen on the 1:250,000 scale map are not the result of any site survey at that time, but rather the result of a graphical intention to portray in general that area. His evidence in this respect was not shaken by cross-examination. Further, he confirmed the understanding the Court

⁹⁷ Transcript, page 610.

⁹⁸ Transcript, page 606.

⁹⁹ Transcript page 895.

¹⁰⁰ Transcript page 1034.

¹⁰¹ Transcript page 1042.



had of his earlier response to the proposition that you could justify drawing the line to the Weston-Ngapara Road¹⁰².

[166] We accept that boundaries are often difficult in landscape terms, but they may be easier in terms of a feature. The line drawn by Mr Densem for Variation 2 represented his judgement about where it was necessary to contain [land] within a certain set of planning regulations to maintain landscape values. The line is located where the gradient of the escarpment becomes sufficiently gentle to allow a fence line, and significantly the laying of a railway track. It is located at a change in the slope¹⁰³. Mr Densem considered the line was appropriately drawn in that place because all the identified values of the escarpment are contained within it. In delineating a feature for planning purposes we consider that an appropriate test.

[167] We confirm the boundaries of the Whitstone Escarpment as a significant natural feature as they are shown in the maps accompanying Variation 2. That is where all parties had assumed it to be when preparing their evidence.

Is the site part of an outstanding natural landscape in terms of section 6(b) because of heritage (including tangata whenua/cultural) elements in that landscape?

[168] This issue overlaps considerably with the contention that the plant site is an "area" of "historic heritage" in terms of section 6(i). We will discuss the historical component more fully when we discuss that issue. Because the two sections overlap they should be read as complimentary to each other and we bear in mind our findings under both sections as they apply to sections 6(b) and 6(f) respectively.

[169] The Waiareka Valley Preservation Society argues that the escarpment is part of an outstanding natural landscape. One of the difficulties we have is to determine the boundaries of the landscape to which the Society refers. Mr Whitney and Mr Albiston talk of the Waiareka Valley as extending from west of Ngapara either to the junction of the Weston-Ngapara Road with State Highway 1 or in Mr Whitney's case to the coast. They appear to consider the whole valley is the landscape.



[170] Mr Kruger defined what he considered 'the designed landscape' which we take to be 'the historic landscape', as stretching from the Enfield-Windsor area, north to the township of Windsor and further south to Fortification Hill and the Totara Estate. While the chain of limestone features form an eastern wall to the landscape in his view, the south-western boundary is much less certain¹⁰⁴. In terms of section 6(b) we also indicate that there may be a problem that many of the items cited as contributing to the historical ambience of the area are items of human construction. That is, they do not contribute to naturalness, and may well be more appropriate to a consideration of whether section 6(f) applies.

[171] At the theoretical level we also note that Mr Kruger is unable to assert that the landscape is an outstanding natural landscape because he has not undertaken a district-wide analysis and interestingly the Preservation Society's closing submissions on this issue are restricted to the adoption of the closing submissions for the Waitaha Trust board.

[172] Mr Densem describes his experience of the Waiareka Valley as¹⁰⁵:

... of an attractive rural landscape of pastures, roads, estates, farmhouses, churches, community, services and commercial and industrial buildings, set within a clearly-definable natural topography of landforms, waterways and ecology. Many of the cultural features and patterns, for instance the road network, survey demarcation and many buildings, are inherited from earlier times but have been progressively adapted to developments and changes over time. Others are recent.

We do not disagree with that; the question for us is whether there is any more to be said.

[173] Mr Albiston referred us to the importance of agricultural developments which occurred in the valley early in the history of European settlement, for instance, the association of the valley with the first export of frozen meat from New Zealand under the instigation of Thomas Brydone in 1882 and the development of the new breed of sheep, Corriedale, in 1874¹⁰⁶. The prosperity brought by this agriculture led to the development of great estates with substantial tree and garden planting, Elderslie, Windsor Park, Burnside to name but three, along with the two-storey house of E B Atkinson built in

¹⁰⁴ Transcript, page 896.

¹⁰⁵ Densem, EIC, paragraph 6.4.

¹⁰⁶ Albiston, EIC, paragraphs 7.3 and 7.5.



1871 sited back from the junction of the Weston-Ngapara and Kia Ora Roads. A number of these still survive, restored to some of their former glory by their present owners, and in the case of others there are significant outbuildings.

[174] In an appendix Mr Albiston provided a local inventory of historic places and sites¹⁰⁷, including great estates and their associated buildings, historic trees, public buildings including Cave School, a hotel, public halls, churches, some converted for use as a private residence, and commercial buildings including a general store, a bakery and a flax mill. Interestingly, he also referred to the Taylors Lime Works – recalling historic extraction of limestone – and various structures supporting the Ngapara branch railway line.

[175] We viewed most of these historic structures. But in terms of section 6(b) the question is not whether these items exist, or are important, but whether they are such that in combination they give a particular character to the landscape such that together with tangata whenua cultural associations they make the wider landscape outstanding as a natural landscape.

[176] Mr Rackham's evidence is that they do not take the landscape out of the ordinary. He recorded¹⁰⁸ that the landscape had been substantially modified as a result of past and present quarrying, agriculture, sporadic buildings and the growth of settlements. He noted particularly the changes to the historic landscape brought about by dairy conversions and the associated irrigation. He accepted that in places remnant woodland and shelter plantings from the great estates along with traditional farming practices were evident in the landscape, but he considered that what remains is not particularly special. He concluded that the extensive changes which have occurred since European occupation have left extant only sporadic items of historical interest and that collectively they do not form a cohesive cultural setting.

[177] Mr Somerville QC put to various witnesses during the course of the hearing a list of proposed factors to be taken into account in assessing a landscape for heritage significance¹⁰⁹. We understand that this list of factors was prepared by Mr Kruger. Since witnesses did not have the opportunity to give this list their considered attention, we do

¹⁰⁷ Albiston, EIC, Appendix 3.

¹⁰⁸ Rackham, EIC, paragraphs 6.7 and 6.9.



not place great reliance upon it. However, this list proposed as a preliminary requirement before a full evaluation a threshold test, namely that there must be “the presence of heritage fabric and not simply an assembly of unrelated historic places or sites”. While not committing ourselves to any particular wording for a threshold evaluation, we consider that for the purposes of assessing whether a landscape is significant for its heritage the extent of heritage items and associations must be such as to give the landscape its particular character.

[178] In addition to the elements of heritage in the valley deriving from the period of early European settlement, we recall that the area has historic significance for both Ngai Tahu and Waitaha peoples. We have already considered the Māori cultural evidence in more detail. We thus propose to refer to it briefly in this part of the decision.

[179] It was the evidence of Ms Mantell and Ms Symon that the Waiareka Valley was a route for Ngai Tahu between coastal kaika and inland mahinga kai gathering areas. Ms Symon described the area around Windsor and Ngapara as having the potential to provide a great deal of information about Maori who previously inhabited the area. In terms of rock art sites the area some five kilometres to the west and south-west of Ngapara is particularly prolific. Ms Mantell regarded the rock art sites – at least those in the vicinity of the Holcim site – as waahi tapu, and Ms Symon considered the Te Ana Raki, Windsor, Ngapara area as a landscape imbued with cultural and spiritual significance.

[180] Ms Maiharoa-Dodds and Mr McAnergney both referred to the use of the valley for teaching purposes and intermittent settlement. Mr McAnergney referred to an “extensive number of sites ... scattered through the landscape”¹¹⁰. He described the Waitaha wananga as itinerant with teachers moving from place to place as circumstances dictated. Through the valley there were sacred pathways with spaced resting places and feeding stations. In his view the sites were not only important individually but collectively, as containing the knowledge of Waitaha.

[181] Mr McAnergney accepted that sites had been abandoned many hundreds of years ago, and had been allowed to slip into semi-obscurity¹¹¹. Nevertheless we recognise that for those people who identify themselves as Waitaha, the Waiareka valley is a deeply spiritual place.

¹¹⁰ McAnergney, EIC, paragraph 3.12.
¹¹¹ McAnergney, EIC, paragraph 3.14.



[182] The presence of taonga and waahi tapu, even if their location is not always precisely defined, is necessarily of significance to the Court. As we have said, under section 6(e) we are required to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water sites, waahi tapu and other taonga. Their presence contributes to an understanding of landscape, but while it may, it does not necessarily, result in the landscape being regarded as outstanding. But we bear their presence in mind as we consider whether the landscape of the Waiareka valley should be so classified. We reiterate, that inasmuch as a landscape does derive its significance from these items of significance to Maori, recognition and provision for them in a way that would satisfy the requirements of section 6(e) is likely also to satisfy the requirements of section 6(b).

[183] The form of the question posed to us by the parties suggests that no party considers the various other factors involved in the consideration of the landscape are sufficient, when considered as a whole, to justify a classification of the landscape as outstanding. These elements can, of course, be of sufficient quality that the historic associations of the landscape make the difference. And so we record that in answering the parties' question we have also borne in mind the significant limestone features this landscape contains.

[184] No witness qualified to make the judgement told us that the wider landscape of the valley is an outstanding natural landscape. Mr Kruger expressly stated that he has not carried out the comprehensive analysis of the whole area necessary to make such a judgement. Mr Densem who had surveyed the whole district considered that the wider landscape was not outstanding, having considered the evidence of the witnesses called by Ngai Tahu and Waitaha, Ms Symon and Ms Mantell, Ms Maiharoa-Dodds and Mr McAnergney¹¹², while noting that the values of the landscape for Waitaha may not have been disclosed and would therefore be beyond his expertise. We note that in cross-examination Dr Forret placed some emphasis on the lack of a qualifier such as 'outstanding' in section 6(f) which requires recognition of and provision for the protection of historic heritage from inappropriate subdivision use and development¹¹³. This may be relevant to our consideration of whether these same heritage matters have the effect of causing a landscape to be outstanding under section 6(b).

¹¹² Densem, *Opinion*, paragraphs 2.45-2.46.
¹¹³ Transcript, p. 6312.



[185] Mr Rackham also found himself in the position of not having provided evidence in relation to Waitaha, or even more broadly on the associative values of this area to tangata whenua. On particular features apparent in the landscape he was prepared to say:

... while rock art and shelters occur throughout the limestone landscape no evidence has been provided that this area is exceptional in its importance or particularly vulnerable to change.

In cross-examination he said that rock art within this area was in fact less concentrated than in a number of other areas of North Otago¹¹⁴.

[186] We have carefully considered whether this landscape should be regarded as 'outstanding' in terms of section 6(b) in terms of its heritage features. We do not consider that the landscape is particularly dominated by its historical associations or heritage features. Like any landscape it bears the traces of the history of its occupation. Some of them are significant. But ultimately we find that they are insufficient to make the wider landscape in which they are set an outstanding natural landscape.

[187] The consequence of our conclusions on the landscape status of the Whitstone escarpment and the wider landscape in which it is set is that section 6(b) of the Act is not a provision relevant to this application. We thus do not need to address the fourth of the questions on natural landscape posed to us by the parties.

What effects are there on landscape/visual amenity values? Will those effects be appropriately avoided, remedied or mitigated by the conditions proposed?

[188] The proposal will impose on what is agreed to be an attractive rural landscape a substantial industrial complex covering 24 hectares. In addition to the vertical pre-heater tower and main stack to which we have already referred, respectively 97 and 104 metres tall, there will be clinker and homogenising silos 50 metres tall, a raw mill and a cement mill 39 and 34 metres tall, and a 68 metre tall kiln¹¹⁵. There will be buildings for the storage of coal and for additives, and a building for offices, laboratory and workshop facilities, along with conveyors to transport material from one part of the complex to another. A steam plume will appear some tens of metres above the main stack on infrequent occasions (less than 1.5% of the time). Mr Rackham indicated that this would

¹¹⁴ Evidence, p. 210.

¹¹⁵ Evidence, Table 1, paragraph 4.5.



be the largest industrial complex between Christchurch and Dunedin by some margin¹¹⁶. It will be located in the immediate foreground of the Whitstone escarpment, between that feature and the Weston Ngapara Road.

[189] The limestone and siltstone used in production will be conveyed through a tunnel drilled into the Whitstone escarpment. From the tunnel portal, 121 masl, the conveyor will traverse part of the escarpment to bring the material to the plant site¹¹⁷. We note that the tunnel, its portal and the conveyor constitute an activity in or on a significant natural feature.

[190] Mr Rackham produced a map showing potential visibility of the top third of the plant's pre-heater tower and of the plume from the main stack¹¹⁸. We note that this theoretical visibility map does not take account of intervening buildings or vegetation. It shows that the top third of the pre-heater may be visible at distances some 15-20 kilometres to the south-west, including from state highway 1. The extent of visibility at various distances from different directions was depicted for the Court in a series of photo montages.

[191] Mr Rackham's evidence¹¹⁹ was that the plant would be most visible from the Weston-Ngapara Road adjacent to the site. When the plant is approached from the south it would come first into view at the junction of the Weston-Ngapara Road with Kia Ora Road, and when approached from the north it would first be fully visible from the junction of Coal Pit Road with the Weston-Ngapara Road. Travellers approaching the Weston-Ngapara Road from Whitstone-Five Forks Road would also have direct views of the plant site. In his view the views for users of this road would be substantial. Mr Rackham told us that residents of Kia Ora Road, 1.5 kilometres to the south-west, with north-east views to the escarpment across the valley from an elevated position, would also be significantly affected. In some views from this direction the top of the main stack will be viewed above the height of the escarpment. There was general consensus around these propositions, and we find that for a distance of some two to three kilometres to the south and west of the plant there would be an adverse effect of some substance on the rural outlook and amenity of viewers from the road or private properties.

¹¹⁶ Rackham, EIC, paragraph 3.7.

¹¹⁷ Ward, EIC, figure 9.

¹¹⁸ Rackham, Graphic Supplement, Figure 14.

¹¹⁹ Rackham, EIC, paragraphs 3.25-3.28.



[192] Mr Rackham quoted to us from the ABB¹²⁰:

... views at lower elevations within a 2-5 km range of the proposed plant tend to be locally restricted by intervening undulating topography, streamside vegetation and agricultural shelter-belts. Consequently the visual effects upon residents and road users located within the valley are generally low ... The water plume may be visible from a wider area even when the plant buildings are out of sight.

But he also told us that the plant would remain visible at elevations of over 100 masl west along Round Hill Road to a distance of 5.5 kilometres. It would be seen face-on in views which also contained the existing Parkside quarry, and the fertiliser plant to the south of the cement plant site. At similar elevations in the Burnside area, the plant buildings and the water plume when it occurred would be clearly discernible, but in oblique views.

[193] As distances from the plant site increase there are two consequences. Towards Burnside to the north-west and Round Hill to the west, the land becomes more undulating and so views become more intermittent¹²¹. Secondly the plant site becomes a smaller proportion of the entire view. Mr Rackham also considered the escarpment would provide a backdrop to views of the plant from most viewpoints, and would help to absorb the site. Both he and Mr Densen regarded the proposed plant as having significant visual effects within a radius of around three kilometres; these effects would diminish markedly beyond that distance¹²².

[194] We note that the plant will be a 24-hour operation and involve lighting in an area which, as Mr Kruger indicates, currently contains very few lights. The lighting will be visible from those places from which the plant could be seen by day. Mr Rackham produced a report from Pedersen Read, electrical engineers, engaged by Holcim to provide advice on and assess the effects of lighting at the proposed cement plant¹²³. The report proposes continuous lighting at road entrances and continuous low-level (below seven metres) lighting for car parking and pathway areas. Other lighting is to be used only as required.

¹²⁰ Rackham, EIC, paragraph 3.26.

¹²¹ Rackham, Transcript p. 142.

¹²² Rackham, Transcript p. 141, Densen, EIC, 6.14-6.15.

¹²³ Rackham, EIC, Appendix 8.



[195] The report indicates that lighting of the plant should not be visible to any extent away from the plant, and the bunding on the boundary to which we subsequently refer should have a significant effect in reducing close proximity effects. The author of the report, Mr A J Read, who was not called to give evidence, wrote that the brightness of ambient light in the viewing area would be modified by roading entry, car parking and pathway lighting, but that if the sources of light were properly shielded the modification would not be significant. He did not think the lighting would cause problems for residents of Kia Ora Road, since lighting flux reduces by the square of the distance from the source. And despite Mr Kruger's protestations, we are inclined to think that at the time lighting would most be used – in winter evenings – most residents will be inside with curtains drawn.

[196] In the case of a plant of this scale, there is a limit to the means of mitigation available to a developer. In terms of the cement plant, the element of the total Holcim proposal under challenge, Mr Rackham¹²⁴ drew attention to features of the design which reduce adverse effects. He noted that the tallest components of the plant had been located at the eastern end of the site, away from the visually dramatic north-west end of the escarpment, and that the use of a tunnel to convey limestone to the plant avoids the need for haul roads across or below the west-facing escarpment. He considered that the plant would partially screen the conveyor from western and south-western viewing points. Further, the plant would be stepped down the slope to give maximum opportunity for screening and internal landscaping. A landscaping plan¹²⁵ proposed mounding and planting to screen the lower elements in the development such as car parking, internal roading, storage areas, security fencing and lighting. Mr Kruger, commenting on the bunding and planting, fairly conceded that not much appeared possible to improve what is proposed¹²⁶.

[197] While the areas within which the plant (and plume) would be visible were largely agreed by the landscape architects, Mr Kruger thought that the effects would be significantly adverse over a much wider area than the other landscape witnesses although he did not define this area precisely¹²⁷. He did however indicate that he considered the

¹²⁴ Rackham, EIC, paragraph 7.2.

¹²⁵ Rackham, EIC, figure 4.

¹²⁶ Kruger, EIC, paragraph 33.

¹²⁷ Kruger, EIC, 265, Transcript 917.



effect shown in Mr Rackham's simulation of views from Round Hill Road, some 5.1 kilometres from the plant site, would be significant and adverse¹²³.

[198] Mr Kruger correctly indicates that whether the effects of the proposal are inappropriately adverse overall must be assessed in terms of the provisions of the Waitaki District Plan. At this point we carry out that assessment in terms of the landscape provisions of the plan, while noting that ultimately an assessment of all effects against the provisions of the plan is required.

[199] We make a brief comment at this point on the notation on the planning maps that this site is within a cement policy area, in which the activity of cement manufacturing is a controlled activity. We have outlined the consents that are required, and that until Variation 4 was notified the entire Rural zone was subject to a ten metre height limit. Bearing this in mind we indicate that nevertheless expectations that the area would necessarily remain in pastoral or agricultural use are in our view unrealistic. We consider our inquiry needs to be on whether the scale of the activity and its effects are appropriate, not on the activity itself. Beyond that, as we have indicated, we do not think we would be assisted by the application of a "permitted baseline".

[200] The landscape objective of the plan is¹²⁵:

Subdivision, use and development are managed so that:

- the values identified for the outstanding or significant natural features, the outstanding landscapes, and the coastal landscapes are protected from inappropriate use and development; and
- the overall landscape qualities of the Rural Scenic Zone are retained.

[201] Policies flowing from this objective which are relevant to this application are a policy to ensure that those characteristics leading to the identification of an outstanding or significant natural feature are protected¹³⁰, and a series of policies on subdivision, use and development to ensure the outcomes anticipated by that earlier policy, among others,

¹²³ Transcript 981.

¹²⁴ Policy 6.8.2.

¹²⁵ Policy 6.8.3.6.



are achieved¹³¹. Included in this series are the encouragement of locations for earthworks away from visually sensitive areas, and where practicable towards the edge of landforms and vegetation patterns¹³², that earthworks should not compromise any rare or distinctive geological outcrops or any other values associated with an area identified as an outstanding natural feature¹³³, and that where possible earthworks should be restored and finished to a contour sympathetic to the surrounding physiography and revegetated with a cover appropriate to the site and setting¹³⁴. We also identify as relevant to the proposal a policy to recognise that while the Rural General zone contains landscapes that are generally of lesser value because of the range of land uses, buildings and structures, the rural amenity of the zone still needs to be managed¹³⁵.

[202] We were also referred to policy 16.8.3.7(e), dealing with buildings and residential units. We note that in terms of buildings more generally, the policy is to apply "in the outstanding natural features and landscapes and significant coastal landscapes". In view of our findings on the landscape status of the Whitstone escarpment, and of the Waiareka valley more generally, we do not consider this policy applies in the case before us.

[203] However, there is an assessment matter for resource consent applications in rural areas which applies to outstanding or significant natural features¹³⁶. It is:

- a) [t]he extent to which the activity will cause:
 - i) the loss of key views or viewpoints;
 - ii) the loss of accessibility to key views or viewpoints;
 - iii) any obscuring of landforms or natural features;
 - iv) the loss of the natural landscape pattern; including the loss of underlying landform pattern;
 - v) the loss or obscuring of present vegetation patterns;
 - vi) the loss of openness and spaciousness of the landscape, and the apparent naturalness of the landscape.

¹³¹ Policy 16.8.3.7.

¹³² Policy 16.8.3.7(f).

¹³³ Policy 16.8.3.7(g).

¹³⁴ Policy 16.8.3.7(h).

¹³⁵ Policy 16.8.3.9.

¹³⁶ Assessment matter 17.2.xxv.



- b) [t]he extent to which the activity is in accordance with the policies in this Plan and in particular those policies listed under Chapter 16, Issue 7, Landscape Objective 16.8.2.
- c) the extent to which the activity is in accordance with the landscape guidelines in Appendix D to this District Plan.

[204] We remind ourselves that these criteria apply to activities located in¹³⁷ significant natural features. That is the activities to which we are to apply it are the tunnel, its portal on the escarpment, and that part of the conveyor which runs across the area mapped as significant.

[205] We analyse firstly how the proposal stands in relation to the provisions which apply to the significant natural feature, and then how the plan's provisions for rural amenity regard the proposal. Since the assessment matter for significant features refers us to the objective and policies relevant to it, we consider it first.

[206] In applying this assessment matter we note that Mr Kruger has assessed the whole proposal against it, not simply the activities which would occur "in" the outstanding feature. In strict terms the activities on the feature will not themselves cause the loss of key views or viewpoints, nor impede access to them. The landform of the feature will clearly remain that of a significant limestone escarpment. The tunnel portal and conveyor will not impact on the area of historic natural vegetation on the site¹³⁸, although the conveyor will cross an area currently in grass. The scale of the feature compared with that of the constructed intrusions upon it is such that the natural landscape pattern and underlying landform pattern will not be lost. Further, we note a condition of consent requires the consent holder, on closure of the cement plant, to remove plant and equipment¹³⁹ – and that clearly includes the conveyor – within five years and to rehabilitate the site in accordance with a plan drawn up in consultation with a community liaison group and submitted to the consent authorities.

[207] We consider the impact of the conveyor on openness to be minimal in the context of the natural feature, but we accept that any constructed feature will cause an apparent –

¹³⁷ Our emphasis.
¹³⁸ See Figure 9.
¹³⁹ Condition A.12.6.



and real – loss of naturalness. We accept Mr Rackham's evidence that the use of a tunnel, rather than a route over the skyline reduces this loss. We turn now to consider the relevant policies under Objective 16.8.2 of the plan.

[208] Policy 16.8.3.6 requires us to ensure that the characteristics of a significant natural feature which led to its identification as such are protected. While the assessment criteria relates only to the activity located in the natural feature, we agree with Mr Purves, the planning witness called by the Council, that the policy requires us to evaluate the full Holcim proposal for the cement plant against it¹⁴⁰. From our earlier discussion of the feature we identify the geological formation of the feature, and the presence within it of rock art, and tangata whenua values more generally as the characteristics which contribute most to its significance. The legibility of the feature and its aesthetic qualities also contribute to that significance but to a lesser extent.

[209] Mr Purves' evidence was that the cement plant is inconsistent with this policy but not contrary to it. We remind ourselves that this is a discretionary activity and that there is no threshold test in this case in respect of the objectives and policies of the plan as a whole. On our analysis the landform itself would retain its value, as most of the plant would be located outside it. Moreover the conditions requiring a final closure rehabilitation plan provide some assurance that the geomorphology of the site will remain largely untouched and retain its integrity. The scale of the feature is such that despite the large industrial plant placed in its foreground the processes leading to its formation will remain legible. The values of the rock art are protected by a series of conditions¹⁴¹, which require Holcim not to disturb any of the rock art sites identified in the ABE and to prepare a management plan which includes the preparation of methods to protect the rock art and to enhance the surroundings of rock art sites. In terms of other tangata whenua and archaeological values, there is an accidental discovery protocol which Holcim are required to follow¹⁴² if koiwi tangata, waahi taonga or items considered waahi tapu are discovered. Kai Tahu witnesses considered these protocols sufficient. We have already discussed whether provision needs to be made for Waitaha involvement.

[210] Nevertheless there will be an adverse effect on the aesthetics of the escarpment. The escarpment will be bisected in views from Kia Ora Road, and will intrude upon

¹⁴⁰ Purves, EIC, 5.12.

¹⁴¹ Conditions A24, 1-5.

¹⁴² In accordance with condition A23.4.



views of a considerable portion of the escarpment from the Weston-Ngapara Road. Despite the measures which Mr Rackham outlines to reduce effects on the significant natural feature we find that there is an element of inconsistency between the proposal and policy 16.8.3.6. To that extent there is also tension between the proposal and Objective 16.8.2. We note however that the policy we have referred to and the objective from which it flows are not entirely identical. The policy is to ensure that the characteristics that make a natural feature significant are protected. The objective is that the values of the feature are protected from inappropriate development. This leaves open the possibility that some development may be appropriate, even if the values of a significant feature are not protected in their entirety. We do not think the provisions of the plan relating to significant natural features set their face against this proposal. But we acknowledge there are elements of inconsistency which need to be brought to account in our final evaluation.

[211] We turn finally to the policy which acknowledges that rural amenity needs to be managed even in areas where the landscape and its features are not outstanding or significant¹⁴³. We note the infinitive is "to be managed", not "to be maintained" nor "to be protected". The plan regards protecting rural amenity as an issue¹⁴⁴. It describes the diversification of activities that has occurred during the last two decades in the rural area and then states:

[d]espite this diversification the rural environment has particular amenity and environmental values which are important to rural people. These include privacy, rural outlook, spaciousness, ease of access and quietness.

[212] The response to this issue is an objective on Rural Amenity¹⁴⁵:

A level of rural amenity that is consistent with the range of activities anticipated in the rural areas, but which does not create unacceptably unpleasant living or working conditions for the District's residents and visitors, nor a significant deterioration of the quality of the rural environment.

[213] That objective is supported by a range of policies. These include (relevantly) encouraging a wide variety of rural land uses ... in the Rural General zone, without increasing the potential for conflict or loss of rural amenity by limiting subdivision to

¹⁴³ Policy 16.8.3.9.

Objective 16.5.1.



moderate-sized allotments; to apply performance standards to activities capable of causing unpleasant living or working conditions for others in the rural community or adverse effects on the environment¹⁴⁶. Other policies relating to residential development within rural areas are designed to minimise conflicts between neighbouring uses and to maintain the distinction between urban and rural areas as a means of retaining the character and quality of rural areas.¹⁴⁷

[214] None of the policies are precisely addressed to the issue here. However, in terms of the intention to reduce conflict between neighbouring uses, we note that the plant will be separated from residences on Kia Ora Road by around 1,500 metres.

[215] In terms of the objective we note that rural amenity is to be at a level consistent with the range of activities anticipated in the rural zone. As a consequence of this a policy¹⁴⁸ relating to business development in rural areas is particularly relevant. It is:

To enable the establishment of business activities in the rural areas only where the activities need to establish in the rural area (in terms of scale, effluent disposal requirements, use of or relationship to rural resources) and no reasonable alternatives exist for their location within established settlements.

[216] It is true that this is a restrictive policy, signified by the use of the word "only". But the type of activity this policy anticipates having to establish in the rural zone is one where its scale and its use of resources make it unsuitable in established communities. This proposal would be the largest industrial complex between Christchurch and Dunedin. It uses a neighbouring rural resource, the limestone, and the planner called by the Society, Mr W D Whitney, told us that it requires separation because of its noxious or dangerous aspects¹⁴⁹. In other words it would not be appropriate in an established settlement.

[217] We consider this is an activity the plan anticipates in the rural zone.

[218] Of the values identified in the rural amenity issue, it is clear that residents of Kia Ora Road would find their outlook to the north-east significantly industrialised.

¹⁴⁶ Policies 16.5.2.4, 6 and 8.

¹⁴⁷ Policies 16.5.2.4, 6 and 8.

¹⁴⁸ Policy 16.6.2.5.2.

¹⁴⁹ Whitney, LIC para 64.



However, some of these sites also have rural views to the north and west, across the valley and to the Kakanui¹⁵⁰. We accept that the amenity of these sites would be reduced in varying degrees. No evidence was produced which enables us to evaluate whether or to what extent the other aspects of amenity identified in the issue will be affected.

[219] However, in terms of the objective on rural amenity, effects on these residents arise from an activity that is anticipated in the rural zone. The landscape witness called by the appellant accepts that not much seems possible to improve on the mitigation proposed. We therefore do not consider the proposal inconsistent with the rural amenity objective of the plan. However, we consider the level of consistency would be increased if the applicant planted additional visual screening on the affected properties on Kia Ora Road where the residents consented to it. We think it appropriate for there to be a condition to that effect.

[220] With such a condition in place our findings on the landscape issues in this case are:

- (1) that in terms of the provisions to protect significant natural features there are elements of inconsistency between the proposal and the plan; they are not of themselves sufficient to justify the refusal of consent, but they properly have a part in the overall evaluation;
- (2) that inasmuch as the landscape provisions look to protect rural amenity, there is no inconsistency between those provisions and the proposal.

Historic heritage

The issues

[221] The parties identified two issues encapsulated in the following questions:

- (a) Is the plant site an "area" of "historic heritage" in terms of section 6(f)?



- (b) To the extent that section 6(f) applies, is the cement plant an appropriate development on that site?

Introduction

[222] Relevantly section 6 of the Resource Management Act states:

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

...

- (f) The protection of historic heritage from inappropriate subdivision, use, and development.

...

[223] Section 2 of the Act defines "*historic heritage*" as:

- (a) means those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities:

- (i) archaeological;
- (ii) architectural;
- (iii) cultural;
- (iv) historic;
- (v) scientific;
- (vi) technological; and

- (b) includes—

- (i) historic sites, structures, places, and areas; and
- (ii) archaeological sites; and
- (iii) sites of significance to Māori, including waahi tapu; and
- (iv) surroundings associated with the natural and physical resources;

Does section 6(f) enable the identification of a "historic heritage landscape"

[224] As we have said, this issue very much overlaps with the contention that the plant is part of an outstanding natural landscape in terms of section 6(b) because of this



heritage. To this extent our discussion on this issue is complementary to, and thus needs to be read together with our discussion and relevant findings on that issue.

[225] The Society claimed that the section of the valley between Ngapara and Fortification Hill can be described as a heritage landscape in terms of section 6(f) because of the presence of a number of historic sites, structures, places and areas¹⁵¹. Further Mr Somerville QC submitted that section 7(a) (kaitiakitanga) and section 7(aa) (the ethic of stewardship), are also relevant when recognising the obligation on the people of the district to care for the historic heritage values of the valley.

[226] It was commonly recognised that the plant is located in an area where there are places of recognised historic heritage values – albeit of varying degrees. The issue is – whether those places can be referred to as being part of a historic heritage landscape.

[227] During the submissions of Mr Somerville QC, we raised as a matter of interpretation, whether section 6(f) applies to “*landscapes*” when there is only an express reference to “*landscape*” in relation to outstanding natural features and landscapes in section 6(b). This question is particularly relevant because section 6(f) was introduced after section 6(b) (in 2003). This also raises the question as to whether section 6(f) allows for an overall evaluation of the combined values of a number of different sites, places and areas at discrete points within a section of the valley (between Ngapara and Fortification Hill). If a landscape does not qualify under section 6(b) as being natural, whether it can qualify under section 6(f) was also a relevant question.

[228] We agree with Mr Somerville QC that the definition of historic heritage in section 2 does not exclude using the descriptor “*landscape*” to address one or a combination of matters in paragraph (b) of that definition¹⁵². The word “*includes*” introduces an incomplete definition. The definition “*includes*” some of the things the word covers but admits to the possibility that it may cover other things as well¹⁵³.

[229] It was not disputed that the natural and physical resources of the Whitstone Escarpment contribute to an understanding and appreciation of New Zealand’s history

¹⁵¹ Somerville QC, opening submissions, paragraph 5.1.3.1.

¹⁵² Cf section 2 Historic Places Act 1993 definition of “historic place”.

¹⁵³ Statute Law in New Zealand “4th Ed, J F Burrows and R I Carter, Lexis Nexis, Wellington, 2009, 416-



and cultures, deriving from a number of qualities including: archaeological, cultural, historic, scientific and technological. *"Natural and physical resources"* are defined in the Resource Management Act. They include land and manmade structures. By using the term *"heritage landscape"* to describe an area or areas where identified historical values exist means that the phrase *"natural and physical"* is considered in terms of all sections 6, 7 and 8 matters.

[230] We agree that a purposive interpretation of section 6(f), as is required by section 5 of the Interpretation Act 1999 (would allow the matters either individually or collectively to be described as part of a *"heritage landscape"*. The ordinary meaning of the words *"site"*, *"place"* and *"area"* allows them to be described as *"landscape"*.

[231] We further agree that it is open to us under section 6(f) to describe a collection of historic sites, places or areas as a heritage landscape. However, the nomenclature *"landscape"* could easily be substituted by *"area"* or *"surrounds"*. Which nomenclature is used would depend on the particular context. Whatever the nomenclature (*"area"* or *"landscape"*) whether it is appropriate to use the proposed site for a plant of the scale intended requires an evaluation of:

- (a) whether there are any natural or physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures deriving from the qualities set out in the section 2 definition (historic heritage sites) worthy of protection;
- (b) whether any such identified sites can be characterised as an *"area"* or *"landscape"* of historic heritage; and
- (c) whether the development will dominate the character of the *"area"* or *"landscape"* so characterised at the expense of the heritage values and accordingly be inappropriate.

Are the historical heritage sites worthy of protection

[232] In section 6(f) the word *"protection"* appears, but there is no reference to the qualifying adjectives *"outstanding"* or *"significant"*. However section 6(f) must be considered in the context of the introductory words to the section which describe each of



the matters as being "*of national importance*". Accordingly the historic heritage value of a site would have to be of sufficient substance to warrant protection as a matter of national importance in the particular circumstances of each case. In this case we identify the historic heritage sites that should be taken into consideration.

[233] A good starting point is the District Plan. Of the 165 heritage items¹⁵⁴ listed in Appendix B of the District Plan, there are a total of 7 in the Waiareka Valley catchment. The first 4 listed below are located in the catchment above the subject site while the other 3 are located towards the coast. None of these are proposed to be demolished, removed or altered as a result of this proposal:

- (i) Item 74 – Elderslie Station (District Plan Category B);
- (ii) Item 85 – Presbyterian Church (District Plan Category B);
- (iii) Item 86 – Windsor Park Station (District Plan Category B);
- (iv) Item 165 – Burnside Homestead – (District Plan Category A);
- (v) Item 98 – Cumbria (District Plan Category B);
- (vi) Item 105 – Totara Estate (4 of the 5 buildings are Category A); and
- (vii) Item 156 – Teschemakers Homestead (District Plan Category B).

[234] According to Mr Purves¹⁵⁵ about a third of the list of items were not on the New Zealand Historic Places Trust Register at the time the Plan was notified. With the exception of Teschemakers Homestead, located not far from the coast, no items of local importance were identified in the Waiareka Valley.

[235] The District Plan's heritage objective refers to:

The conservation and enhancement of the heritage values of the District, including historic places and areas...in order that the character and history of the District can be preserved and managed.¹⁶⁶

This objective therefore allows for the concept of areas to be included in the conservation of heritage values, however the District Plan does not appear to have advanced this possibility.

¹⁵⁴ In addition there are a number of protected World War I Memorial trees located in the valley (rule 11.5.5.1, page 248).

¹⁵⁵ Rebuttal evidence, paragraph 26.

¹⁵⁶ Waiareka District Plan 2.3.1 Objective A, page 19.



[236] The listing of heritage items contained in Appendix B to the Waitaki District Plan primarily includes specific buildings or objects. The list in a few places extends to the setting in which buildings are located (for example the Shag Valley Station homestead and gardens), or to groups of buildings (for example a terrace of shops on Wansbeck Street, Oamaru). The list does not include any areas of a larger scale on the basis of historic heritage and certainly not to the extent of identifying the Waiareka Valley or any other valley.

[237] The Plan's heritage section does discuss the importance of the District's down lands and coastal areas, areas of pastoral farming and cropping, the discovery of gold, and the stone buildings in Oamaru. In no part of the discussion is the Waiareka Valley mentioned as being an area of significant heritage value or being a heritage landscape.

[238] Most of the matters identified in the District Plan are also registered as historic places under the Historic Places Act. This was pointed out to us by Mr Albiston¹⁵⁷. In the immediate Waiareka Valley there are a total of 7 registered historic places:

- (i) Category 1 – Burnside homestead;
- (ii) Category 2:
 - Elderslie stables, Elderslie men's quarters;
 - Windsor Park Station homestead, Windsor Park Stables, Windsor Park men's quarters and cookhouse;
 - Enfield Presbyterian Church

Within the environs of the Waiareka, either enroute or with related viewshafts there are another 13 registered historic places:

- (i) Category 1 – Totara Estate (4 registrations);
- (ii) Category 2:
 - Cumbria Estate (4 registrations);
 - Tokarahi farm buildings and homestead (3 registrations); and
 - Totarahi homestead on Totara



[239] We next turn to consider the pre-European cultural aspects. We have already discussed the cultural aspects as they relate to the Act's provisions in relation to Māori and section 6(b). It was commonly accepted that the Whitstone Escarpment and surrounding area is valued due to its importance to Māori. A number of rock art sites have been identified on the escarpment, though not on the site itself. The rock art sites reflect the use of the site by Māori particularly Waitaha. There was conflicting evidence between Kai Tahu and Waitaha as to the importance of the Whitstone Escarpment and the surrounding area. Waitaha witnesses maintained that the whole of the escarpment including the plant site and the Waiareka Valley was or is waahi tapu because of its special significance to Māori. The Kai Tahu witnesses, while acknowledging the importance of the area to Māori, did not elevate that importance to a level whereby the proposal should not proceed, provided mitigation measures were imposed to address the cultural objectives of the *"Kai Tahu ki Otago Natural Resources Management Plan"*. For the reasons given earlier in this decision we prefer the evidence of Kai Tahu.

[240] Next we consider the archaeological evidence. The only archaeologist to give evidence was Mr Petchey, called by Holcim. He told us¹⁵⁸ that before his survey, there were 24 previously recorded archaeological sites in the immediate vicinity of the proposed Weston plant site and quarry. These were all pre-historic archaeological sites, mostly rock shelters referred to in some detail by the Māori witnesses. He noted that the area had been searched several times for pre-historic archaeological sites, particularly in the 1990s during the Kai Tahu rock art survey, when Brian Ellingham inspected all of the local sites and searched for more.

[241] Finally, we consider the evidence of local residents who addressed the historical overlay of the valley, particularly the evidence of Mr Malcolm, Ms McCone¹⁵⁹ and Mr Albiston¹⁶⁰. Mr Malcolm and Ms McCone both emphasised the agricultural uses of the land over 3 historical periods:

- (i) pre-1900s – the period of the large run holders who built "show place" homes on their estates – Elderslie, Windsor Park, Burnside, Totara and Tokarahi. None of these are in close proximity to the proposed plants.

¹⁵⁸ Petchey, EIC, paragraphs 4.10 and following. Mr Petchey carried out an archaeological survey in 2006.

¹⁵⁹ Both called by Holcim.

¹⁶⁰ Called by the Society.



These ran "thousand of sheep on the tussock grasslands"¹⁶¹ and the land offered "the potential for cereal cropping..."¹⁶²

- (ii) post-1900 -- the subdivision of the large estates which "created a new community vitality"¹⁶³ in the village. This resulted in small holdings with mixed farming practices.
- (iii) the last decade -- this has seen the development of the North Otago Irrigation Company and a resurgence of "precision dairy farming". This has resulted in the topography of some farms being altered, trees and vegetation removed, additional farm labour accommodation, large spray irrigators and the erection of new dairy sheds¹⁶⁴.

[242] They also emphasised, that the valley has for many years been utilised for the available local mineral resources -- coal extraction and the cutting and quarrying of limestone¹⁶⁵.

[243] Mr Albiston referred to the listings in both the Historic Places Act and the District Plan. He also compiled a list of places not formally accorded status under either the Act or the Plan. A partial inventory prepared by Mr Albiston of sites that are neither on the Historic Places Trust Register nor listed in the District Plan was attached as Appendix 3 to his evidence. We attach the list as Appendix 6 to this decision. As he said "all rank as sites of significance, albeit varying"¹⁶⁶.

[244] All of the sites that have been registered under the Historic Places Act or listed in the District Plan would at least be of district importance. Similarly the Māori cultural sites, especially the rock art, would also be of district importance and may even be of national importance. The sites not listed or registered no doubt have some historical value but no expert objective assessment has been made of them. None of the sites are located on the proposed plant site itself. While the sites may vary in their degree of cultural or heritage significance we have regard to them all in considering whether or not

¹⁶¹ McCone, EIC, paragraph 32.

¹⁶² Malcolm, EIC, paragraph 3.1.

¹⁶³ Malcolm, EIC, paragraph 3.6.

¹⁶⁴ Malcolm, EIC, paragraphs 3.8 and 3.9.

¹⁶⁵ Malcolm, EIC, paragraph 3.1.

¹⁶⁶ Albiston, EIC, paragraph 9.7.



the proposed plant is appropriate. There was no evidence that any of the identified sites would be directly affected by the proposal.

[245] We next turn to consider whether the valley, or part of the valley, could be characterised as a heritage “landscape” or “area”.

Can the area encompassing identified sites be characterised as a heritage landscape?

[246] In his opening submissions Mr Somerville QC put the Society’s case:

The appellants claim that the section of the valley between the Ngapara and Fortification Hill can be described as a heritage landscape in terms of section 6(f) because of the presence of a number of historic sites, structures, places and areas. The evidence relates to:

- (a) the historic/heritage values of the escarpment for Māori.
- (b) the historic sites identified by Mr Petchey within and outside Holcim’s landholding, many of which relate to the early settlement by Europeans of the area surrounding the proposed plant known as Cave Valley.
- (c) other sites identified by Mr Albiston throughout the Waiareka Valley.
- (d) the area involving a design landscape within part of the valley identified by Mr Kruger.¹⁸⁷

[247] Mr Kruger in his evidence in chief was not quite so expansive or so confident. He said:

In this case, it is my opinion that the lower Waiareka Valley – roughly within the boundaries of the former Elderslie, Windsor and possibly other estates (at least) – is likely to constitute a heritage landscape. It is my view that the significance of this landscape is potentially of national importance.

I base my opinion on these facts:

- evidence of Amanda Symon with respect to archaeological value attributable to tangata whenua presence in this landscape – in particular Māori rock art.
- the probability of more such evidence yet undiscovered (as noted by Symon and Salter).
- evidence by Peter Petchey identifying archaeological sites relating to European settlement.
- evidence of Bruce Albiston on historic sites, processes, events and interaction of community and landscape.



- the probability that more such evidence is yet undiscovered.
- my research and applied knowledge with respect to the design part of this landscape as outlined above.¹⁶⁸

[248] Earlier in his evidence he said:

...I am strongly of the opinion that there is sufficient evidence to consider this landscape (inside boundaries to be determined) as a potential heritage landscape. It should therefore – in my opinion – be considered in the context of Part 2 sections 6 (f) and 8(e) – because of the heritage layers relating to tangata whenua presence...¹⁶⁹

[249] Both Mr Somerville QC and Mr Kruger referred to the "*Bannockburn Heritage Landscape Study*"¹⁷⁰. The primary purpose of that study was to trial a newly developed methodology for investigating heritage at a landscape scale. The monograph described its content:

Identification

The study offers an understanding of the landscape both spatially and as it has evolved over time through human interaction. It identifies relationships between physical features in the land, both where these evolved simultaneously and where they evolved sequentially. It also provides information about the relationships between people and the landscape, both in the past and today. It attempts to identify key heritage features, stories and traditions in the Bannockburn landscape.¹⁷¹

[250] It defines heritage landscape as:

- (a) **Heritage landscape** – is a landscape, or network of sites, which has heritage significance to communities, tangata whenua, and/or the nation.¹⁷²

[251] The authors of the monograph entered into a complex and detailed interdisciplinary methodology of spatial analysis, using connectivities between superimposed layers of history¹⁷³. No such study has been undertaken here. It was suggested that the proceedings should be adjourned to allow such a study to take place.

¹⁶⁸ Kruger, EIC, paragraphs 256 and 257.

¹⁶⁹ Kruger, EIC, paragraph 253.

¹⁷⁰ A study of the Bannockburn area by Stephenson, Boushop and Petchey – published as a monograph in September 2004 being No. 244 in a series named "Science for Conservation".

¹⁷¹ Part 1.2, page 11.

¹⁷² Part 1.4, Page 14.

¹⁷³ See abstract, page 9.



Such a study would be at some considerable expense. Accordingly the evidence would need to establish a threshold before acceding to such a request. Mr Petchey was one of the authors of the Bannockburn study. In answer to a question from Mr Somerville QC he had this to say:

In part. I think, I mean the reason the Bannockburn area was chosen was because of the very intense amount of heritage fabric that was there. There was historic reserve, goldmining, both alluvial and hard rock, there was the historic Gore Station. It is a very intense landscape. The Waiareka Valley I mean there has been a lot of discussion about the heritage landscape values of the Waiareka Valley, and I accept there is some important nodes, using this terminology, such as Windsor Park, Elderslie and so on. But to actually undertake something of this degree of research, which is actually a very large piece of work, every time there is a development would be untenable, and you have to make a call somewhere about do you or don't you.

... 174

[252] Mr Petchey was of the view that the Waiareka Valley did not meet the necessary threshold. This was reiterated in questions from the Court:

- Q. Now, you mentioned the intensity. Do I take it from that it was the intensity that sort of created the threshold of the decision to proceed?
- A. At Bannockburn.
- Q. Yes.
- A. Well, it was chosen because it was a prime candidate, because of that intensity?
- Q. And do I understand it is your evidence, from listening to answers from questions from Mr Somerville, particularly, that in carrying out such an intensive study, there needs to be some sort of practical threshold?
- A. Yes, it is – I mean it would be very hard to draw a line in the sand and say this site is and this site isn't. But yes, you have to apply a certain degree of commonsense to going in boots and all to that degree of intensive study.
- Q. And by intensity, do you mean intensity of archaeological sites, historical sites, nodes, or a collection of all these things.
- A. A collection of all the things. You have to sort of look at it and make a decision based on what you are seeing, what is there.
- Q. And do I also understand it to be your evidence that in the Waiareka Valley the intensity is such that the threshold has not been reached?



- A. You could apply the same process to anywhere you like at all but I would – if you asked me, in the Waiareka, I would say there are some very important historic sites there, but in terms of this sort of project planning, it probably doesn't reach that intensity.¹⁷⁵

[253] Mr Densem and Mr Rackham were both strongly of the view that the Waiareka Valley is not a coherent heritage landscape. Mr Densem said:

Having now considered Mr Kruger's evidence regarding European landscape improvements and art history, and again considered that of Mrs Mantell, Ms Symon, Mr Petchey, Ms Te Maiharoa-Dodds and Mr McAnergney regarding Māori heritage, I remain of the originally-stated opinion that this is not a coherent heritage landscape, but one whose character is based on the values stated by Mr Rackham. It does not possess 'heritage integrity' in the sense discussed under the Bennockburn Study in paragraph 2.56 above.¹⁷⁶

[254] In cross-examination by Mr Somerville QC, Mr Densem was strongly pressed on the heritage threshold of the valley. He remained unflinching as this exchange shows:

- Q. So I would suggest to you, Mr Densem, that in this case it is clearly in anyone's judgment a threshold that has been passed when it comes to this valley and its historic heritage values in a district-wide context?
- A. No, I do not accept that that threshold has been passed.
- ...
- A. If I plot the areas that are, as you have referred to, of value I believe firstly that they are of too small a grouping and too scattered a grouping to have the necessary coherence to make a heritage landscape.¹⁷⁷

[255] Mr Rackham referred to what Mr Kruger said in paragraph 256 of his evidence, quoted earlier, and said:

...His justification for this somewhat diffident conclusion is set out in paragraph 257. However, apart from Bruce Albiston's evidence and his own research (which appears to be heavily based on Mr Albiston's material) his conclusion relies on the Holcim evidence of Mr Petchey and Ms Symon and the probability (in his opinion) that more evidence is yet undiscovered. He ignores the evidence of Mr Bray of the New Zealand Historic Places Trust at the Council hearing and the conclusions of Mr Petchey and Ms Symon. I consider that this approach is inadequate to justify treating the valley (particularly the area south of Enfield) as a s6(f) heritage landscape...¹⁷⁸

¹⁷⁵ Transcript, pages 355-356.

¹⁷⁶ Rebuttal, paragraph 4.18.

¹⁷⁷ Transcript, page 621.

¹⁷⁸ Rebuttal, paragraph 17.



[256] Mr Rackham was also pressed in cross-examination by Mr Somerville QC¹⁷⁹ but maintained his view that the Waiaireka Valley "*is not a cohesive heritage landscape*".

[257] On the other hand, Mr Kruger and Mr Albiston were both of the view that the threshold had been reached. We have already referred to that part of Mr Kruger's evidence which encapsulates succinctly his views, albeit somewhat diffidently¹⁸⁰. During the cross-examination of Mr Logan, Mr Kruger referred to a map of the area on which he had hatched what he characterised as a "*design landscape*". He said:

Within this area and as coarse as I have delineated or hatched it, I believe lies the heritage landscape. Which area exactly it would be, and I accept that a line would have to be drawn at some point when an assessment is complete, then I would say that the area lies within that hatched area. Where exactly it is I cannot say.¹⁸¹

Clearly Mr Kruger considered that the threshold had been reached where further assessment was warranted. His justification for this is, as we had said, set out in paragraph 257 of his evidence in chief.

[258] It is apparent from his evidence that he relied considerably on the evidence of Mr Albiston. Mr Albiston was formerly the General Manager of the New Zealand Historic Places Trust (July 2002 to January 2007). He now co-manages a business partnership engaged in heritage accommodation and historic homestead tours based at Burnside and Elderslie. As we have said, he presented a detailed and referenced history of the valley identifying a number of sites that he considered had heritage status within the meaning of historic heritage "*as defined in the Resource Management Act*". He strongly advanced the proposition:

All of the Waiaireka Valley "*nodes, networks, spaces, stories, webs, and layers that highlight relationships in terms of space, time and community associations*", are spread over and around the four proposed Holdim sites. They are the current and historic features that denote the original space and place of valley that must be identified and recognised as the accretion and endowment of its rich history.

...I am advancing the view that benchmarked by the intent of sec.6(f) the Waiaireka Valley is a place of national rural heritage significance to be

¹⁷⁹ See in particular transcript, 212.
¹⁸⁰ See transcript, paragraph 256.
¹⁸¹ See transcript, page 941, lines 34-39.



protected and preserved...from *inappropriate subdivision, use and development...*¹³²

[259] We are thus confronted with two diametrically opposed views. While the matter is finally balanced, we prefer the view of Messrs Densem, Rankham and Petchey. We have already indicated that we prefer the views of the Kai Tahu witnesses on Māori matters.

[260] We find that the Waiareka Valley, or part thereof, is not a heritage landscape. The reasons for our finding include:

- (i) the District Plan does not in general, limit change in the valley;
- (ii) there are no general protections of buildings against modification or demolition;
- (iii) the approach taken by the District Plan is to identify specific sites, structures and other items as having significance and being worthy of protection by listing them in the Plan;
- (iv) none of the sites specified in the Plan would be directly affected by the proposed plant;
- (v) we preferred the more objective evidence of Messrs Densem, Rankham and Petchey to that of Mr Kruger and Mr Aibiston;
- (vi) Mr Densem's long time association with the Waitaki District. He was the only landscape witness who had carried out an extensive district-wide assessment; and
- (vii) the evidence does not support the argument that this was a designed landscape as we have indicated earlier.

[261] We accept that the Waiareka Valley has rich cultural and historical associations. Just where those associations fit in comparison to other parts of North Otago, such as the Waitaki Valley, we cannot say – as no evidence was adduced from which a comparison could be made. On the evidence we have heard we do not consider that the historical and

¹³² paragraphs 5.6 and 5.7.



cultural associations are such that they render the Waiareka Valley worthy of section 6(f) protection. In any event the site would have no direct impact on any of the historical or cultural sites identified in the evidence. It would thus not be inappropriate for this reason.

Economic effects and tourism

Issues

[262] The parties identified one issue under tourism effects namely:

Will there be an adverse effect on tourism in the Waiareka Valley? If so, will that effect be such that consent should be declined or additional conditions imposed?

Three issues were identified under economic effects by the following three questions:

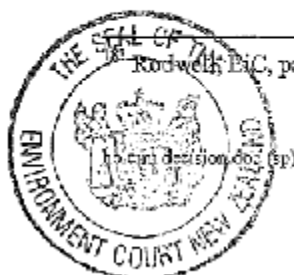
- (a) Is Mr Jones' evidence compelling in relation to economic projections about future cement demand and efficiency?
- (b) Are the effects of a possible future closure of the existing Westport works relevant to the Court's consideration? If so, what does that mean for the applicant?
- (c) Do the economic projections by Mr Jones give rise to uncertainty such that consent should be declined?

Tourism

[263] We have stated in the previous paragraph the issues identified by the parties on the question of tourism. The concern of the appellants was in our view summed up in the comment of Mrs B M Rodwell who is restoring the historic gardens and some of the historic buildings on the Elderslie Estate, and hosts homestays and garden tours there. She said:

(o)rganics and heavy industry do not mix, nor do people seeking spiritual refreshment wish to have unimpeded views of huge industrial plants.¹⁶⁸

Rodwell EJC, paragraph 1.6.



[264] Mr Albiston now manages a heritage accommodation lodge and historic homestead tours at Burnside Homestead, Enfield. He provided a description of tourist-related activity in the Waiareka Valley which included:

- bed and breakfast accommodation at Burnside, Elderslie and Tokarahi homesteads, and Tara homestay on Springhill Road, accounting for well above 500 bed nights;
- heritage house and garden tours to these properties, and the Clark Rose Garden on Springhill Road;
- tours to Parkside quarry and gardens;
- Vanished World Tours operating from Oamaru;
- a daily bus service from Dunedin to Mount Cook traversing the Waiareka Valley and visiting Vanished World sites;
- independent tourists visiting and traversing the valley in campervans, cars and on motorcycles.

Mr Albiston also referred to the participation of venues in the Waiareka Valley in Oamaru's annual Victoria heritage celebrations, including the participation of schools, visitors taking part in vintage/classic car rallies, weddings, corporate group events and family occasions, together with the use of the valley by people travelling to the Dansey's Pass Hotel and its associated outdoor heritage¹⁸⁴. His contention was that the proposed Holcim development would change the historic character of the whole valley and by implication that it would become far less attractive to tourists¹⁸⁵.

[265] Holcim called counter-evidence from Professor G W Kearsley, currently Professor of Communication Studies, and formerly Professor of Tourism at Otago University. Professor Kearsley noted that the contribution of the Waiareka Valley to total tourism in the Waitaki District was very small. The Commercial Accommodation Monitor, which Professor Kearsley described as statistically rigorous, recorded 193,000 visitors to the Waitaki District, yielding almost 306,000 bed nights. The upwards of 500 people hosted at the bed and breakfast accommodation referred to by Mr Albiston represented only a tiny fraction of that¹⁸⁶.

¹⁸⁴ Albiston, EIC, paragraph 10.7.

¹⁸⁵ Albiston, EIC, paragraph 10.11.

¹⁸⁶ Kearsley, rebuttal, paragraph 8.



[266] Professor Kearsley considered that the Waiareka Valley comprised two different regions geographically each with clearly different tourism products and with different susceptibilities to the effect of a cement plant. The first of these regions extended from the plant site to Ngapara, and was an open agricultural valley with a number of heritage sites principally associated with the history of agriculture. The second of these regions was described by Professor Kearsley as:

...an increasingly intimate, and in my view, more scenic environment with narrow, winding roads, adjacent streams, splendid and spectacular limestone topography, with a number of well-interpreted, natural heritage sites, especially those maintained by the Vanished World fossil trail¹⁸⁷.

It is also some considerable distance from the proposed cement plant site, as Professor Kearsley pointed out in his evidence-in-chief¹⁸⁸.

[267] Professor Kearsley was of the view that no evidence had been produced by the appellants of the kind that could substantiate the allegation that the plant would have adverse effects on tourism. He noted that near Holcim's existing plant at Cape Foulwind significant clusters of natural heritage operations and luxury accommodation had developed well after the establishment of the plant; likewise in Dunedin the Monarch eco-tourism cruise began by sailing past the Ravensbourne fertiliser plant¹⁸⁹.

[268] We agree with Professor Kearsley¹⁹⁰ that in general terms there is a dearth of robust research both on levels of tourism in the Waiareka Valley and on the effect of large-scale industrial operations in the vicinity of tourist attractions. We are inclined to accept that some visitors to the historic homesteads may not like the cement plant. Whether it will dissuade them from staying is less certain. Even if there is some impact on the accommodation business of the homesteads, and we are far from certain that will be the case, we do not consider it would justify declining consent to the proposal, nor in terms of the questions posed did the appellants suggest any conditions which it would be appropriate to impose.

¹⁸⁷ Kearsley, rebuttal, paragraph 5.

¹⁸⁸ Kearsley, EIC, paragraph 4.8.

¹⁸⁹ Kearsley, EIC, paragraphs 4.5-4.6.

¹⁹⁰ See Kearsley, EIC, paragraph 3.25, and rebuttal paragraph 16.



Future cement demand in New Zealand – is Mr Jones’ evidence compelling in relation to economic projections about future cement demand and efficiency?

[269] In his opening submissions, Mr Somerville QC submitted:

The only way section 5 in this case would override the values in sections 6, and 7 would be if the Court accepted that because of its national importance the proposed project should outweigh the protection of Part 2 matters.

[270] In his closing submissions there was a subtle but important change of emphasis. Mr Somerville QC submitted:

It is an inefficient use of the natural resources of the site, with its acknowledged amenity, landscape, heritage and Māori values, if there is unlikely to be a demand for cement production of 880,000 tonnes from the site in the foreseeable future. A plant of this scale is not needed at this time.

[271] This submission was based on the evidence of Mr Jones¹⁹¹, whose analysis showed that there is excess capacity in the New Zealand cement industry nationally. Thus it would be inefficient to allocate resources for a development of the scale proposed by Holcim.

[272] Relevantly, the question of allocative efficiency raised by Mr Somerville QC needs to be considered in the context of two matters:

- (i) The extent of the effects on amenity, landscape, heritage and Māori values – matters which we have already addressed in some detail; and
- (ii) The future capacity of the New Zealand cement industry nationally – a matter that we next address.

[273] Allocative efficiency may also have a bearing on the issue of market risk, which, in a project of this scale, is something for management to consider carefully based on numerous inputs¹⁹². It is not the function of this Court to sit in judgment on issues of commercial risk and prudence – that is a decision for the Holcim Board¹⁹³.

¹⁹¹ A private economist and also treasurer of the Preservation Society, who gave evidence on behalf of the Society.

¹⁹² Smith, rebuttal, paragraph 8.

¹⁹³ See *Save the Point Inc. v Wellington City Council*, Environment Court Decision W082/2007 at paragraphs 21 and 222; *Todd Energy Limited v Taranaki Regional Council*, Environment Court Decision



Future cement demand

[274] Mr Cowie, Capital Projects Manager for Holcim, told us that the New Zealand cement market has grown by approximately 40% to the current level of approximately 1.4 tonnes per annum – divided between 930,000 tonnes capacity at the Golden Bay Cement plant in Whangarei and 500,000 tonnes of capacity at Holcim's existing plant at Westport. Holcim is currently not able to supply all of its customers from current production at Westport and relies on imported cement to make up the shortfall¹⁹⁴.

[275] Mr Cowie estimated that the market is forecast to grow by an average of around 1.2% per annum in the long-term to 1.6 million tonnes in 2020. Holcim has planned that proposed production capacity at Weston will expand overtime to 900,000 tonnes per annum to meet future demand. Market growth, said Mr Smith, is a function of national economic performance including such factors as:

- (i) GDP growth;
- (ii) Population growth;
- (iii) Productivity;
- (iv) Housing density;
- (v) Type of industrial development; and
- (vi) Other factors.¹⁹⁵

[276] Mr Jones did not agree. He constructed a time series model of cement demand in New Zealand (1974-2007). The model's econometric analysis found that cement demand in New Zealand is co-integrated with construction activity (both residential and non-residential)¹⁹⁶.

[277] The econometric modelling led Mr Jones to the view that the boom to bust nature of construction makes predicting long-term demand "*extremely difficult, with forecasts very sensitive to the starting point selected*"¹⁹⁷. To approximate long-run demand, he took the average of cement sales from 1960-1969 and grew that by 1.2% per annum. He

W101/2005, paragraphs 19 and 20; and *Gulf District Plan Association v Auckland City Council*, Environment Court Decision A101/2003.

¹⁹⁴ Cowie, EIC, paragraphs 2.1 and following. The evidence is dated November 2008.

¹⁹⁵ Smith, transcript, page 45.

¹⁹⁶ Smith, transcript, paragraphs 4.5 and following.

¹⁹⁷ Smith, transcript, paragraph 5.1.



concluded that long-run cement demand would reach current domestic capacity in 2023¹⁹⁸. Alternatively, if the 2009 figure was used as the starting point it would take until 2028¹⁹⁹.

[278] The following exchange took place with Commissioner Manning:

COMMISSIONER MANNING: Chart 9.

MR JONES: What I did there was take – average the decades for the 1960s and then start growing it from that point.

COMMISSIONER MANNING: Now the question I have is, isn't that a more reasonable starting point than to take either the height of a peak or the depth of a trough?

MR JONES: Yes, exactly. If you, when you end up on my chart 10 where you take the trough from 010--²⁰⁰

...

And:

COMMISSIONER MANNING: Well, assuming you have got that line over time, that would suggest that, my eyesight is not that brilliant, but at about 2022 or 2023, the line would hit the 2007 capacity?

MR JONES: Correct.

COMMISSIONER MANNING: Now, given that we are looking, we want 2009 now, so we are looking at a 2013 completion date. If we took that line, wouldn't it suggest that capacity, current capacity would be reached in about nine years of the plan's operation? Okay, there will be trough and dips, and there happen to be a troughs and peaks, and if they happen to be a peak, it might be sooner, it might be lower. Because we need the capacity in the sense to cope with peaks. Or is that not a reasonable argument?

MR JONES: It is a reasonable argument. The risk is, you know, and here I am venturing onto the commercial factors. Looking at the industry the risk is you would be looking at a period of quite an extended period of depressed profitability as you operated below capacity. Which is kind of what happened in the 90s, if you look back.

COMMISSIONER MANNING: I mean in a sense, given that cement broadly is an essential product, if a private company takes that risk ---

MR JONES: ---within the resource, yes.

¹⁹⁸ EIC, paragraphs 5.3 and 5.4. See Chart 9.

¹⁹⁹ EIC, paragraph 5.4. See Chart 10.

²⁰⁰ EIC, paragraph 5.4. See Chart 10, page 1223, line 38, page 1224, line 1.



COMMISSIONER MANNING: Isn't there a benefit in somebody taking that risk so that there is actually capacity there if we need it?

MR JONES: It hasn't been clear to me what the cost has been – my problem with that is that is not clearly the cost of importing at those peaks. But I accept in principle what you say.²⁰¹

...

And:

COMMISSIONER MANNING: And on the projected 50 year life of a plant, that probably means whether it is from this plant or some other plant, that there will be a requirement for capacity to be met, for 38 of the 50 years life of this plant or some other plant?

MR JONES: If you take 2013 as your starting point.

COMMISSIONER MANNING: Well, I mean given that this doesn't look the sort of building that can be built tomorrow.

MR JONES: Yes.²⁰²

[279] The proposal is a long-term investment – a minimum of 50 years, possibly even 100 years given the limestone reserves²⁰³. The plant would not be built and commissioned for at least 4 or 5 years and it would be some years later before it would be in full production. Even on Mr Jones' evidence, it would appear that demand for cement would have increased to a point where this plant is necessary somewhere between 2020 and 2028, relatively early in the life of the plant.

[280] In our view cement is a vital commodity for economic development in New Zealand and is essential for commercial and residential building construction as well as development of infrastructure. There will be a growing demand for cement over the next 50 years. There will be periods of downturn followed by periods of increased activity. The timing of these cycles is uncertain, but the long term trend is for increased demand for cement. The plant is intended to meet not only current needs but future demand over the life of the plant.

[281] We are satisfied that in the long-term, the proposed plant would be an efficient allocation of resources.

²⁰¹ Transcript, page 1224 line 44, page 1225, line 29.

²⁰² Transcript, page 1226 lines 30-40.

²⁰³ Transcript, Smith, page 36 line 39, page 37 line 2.



The possible closure of Westport – are the effects of a possible future closure of the existing Westport works relevant to the Court's consideration? If so, what does that mean for the applicant?

[282] As we have said, Holcim is currently producing cement at its Foulwind plant at Westport²⁰⁴. That is Holcim's sole New Zealand plant and it is producing cement at its capacity level which is below the cement level of demand. For the last 5 years Holcim has been importing cement from overseas.

[283] The Westport plant was built 50 years ago with upgrades in the 1960s and 1970s²⁰⁵. It is a "wet process" plant as opposed to the modern day and more environmentally friendly "dry process" method. The option for upgrading components of the Westport plant to newer technology and increased capacity are limited. As Mr Cowie said:

The large-scale of the required upgrade, its relatively high capital costs and high operating costs are not attractive.²⁰⁶

[284] Cement is currently shipped out of the Westport Port, which is constrained by natural elements on safe operating drafts, requiring closure in some weather conditions. The air discharge consent for the current Westport plant expires in 2014. If the current plant was to be retained, a major refit of the main stack dust collection equipment, to further limit emissions, would likely be required²⁰⁷.

[285] If resource consent is granted for this proposal and should a decision to invest follow, the Cape Foulwind plant will be closed in consultation with the wider Buller community. Such a closure would have a negative impact on the socio-economic position of Westport and the wider Buller district, an effect which was not analysed in any great depth before us.

[286] We agree that the socio-economic effects on the environment of the Buller district, if the Weston proposal were to proceed is a relevant consideration. However it needs to be put in context, the plant might close for other reasons. It is already 50 years

²⁰⁴ Cowie, EIC, paragraphs 2.1 and following.

²⁰⁵ Cowie, EIC, paragraph 3.2.

²⁰⁶ EIC, paragraph 3.2.

²⁰⁷ Cowie, EIC, paragraphs 6.2-3.



old. Holcim may determine it is no longer economic. Holcim may fail to get resource consent renewal. Holcim may decide that the cost of upgrade to meet new consent requirements are prohibitive. Holcim may exit the New Zealand market altogether. Holcim might move to entirely importing cement as it has numerous plants in other countries, or resolve on some other New Zealand site if the Weston site is refused consent. Further the socio-economic disadvantages to Westport and the wider Buller district need to be weighed and balanced with the other considerations both positive and negative that we have identified.

Do the economic projections by Mr Jones give rise to uncertainty such that consent should be declined?

[287] Holcim has not made a final decision to proceed with the plant. We were told that it will not make a decision unless and until consents for the plant are obtained. The Society suggests that under the present economic climate, that even if consent is granted, it is uncertain, perhaps unlikely, Holcim will undertake the project. The Society referred to general comments on the Holcim international website and comments in Holcim's February 2009 Newsletter²⁰⁸ and the evidence of Mr Jones.

[288] The position of the New Zealand Board of Holcim, was dealt with fully by both Mr Smith²⁰⁹ and Mr Cowie²¹⁰. If consents are granted a final decision on the proposal is expected to be made approximately 3 months later. That decision will be made by the parent company, Holcim Limited. The position of the New Zealand Board of Holcim is that the Weston plant is provided for and has not been "shelved"²¹¹. The relevant cost/economics will be updated to reflect the Court's decision before a final decision is made²¹².

[289] We are satisfied from the evidence adduced by Holcim that the Weston proposal is its preferred option. It has invested a substantial amount of money in developing the project and seeking consent. Holcim's position has consistently been that until it has consent and knows the terms of consent, it cannot make a full appraisal of the project's feasibility, and therefore a final decision on whether to go ahead or not. In our view that

²⁰⁸ Exhibit G.

²⁰⁹ Smith, EIC, paragraphs 3.1, 6.10, 7.1-7.3.

²¹⁰ Cowie, EIC, paragraphs 4.1, 4.2, transcript page 65 line 40.

²¹¹ Smith, transcript, paragraph 41 lines 4-21.

²¹² Smith, transcript, page 38 lines 26 and following.



is a perfectly logical position for Holcim to take, with a proposal that carries with it substantial capital cost.

[290] The decision on whether to proceed with the Weston project is a commercial decision for the Holcim Board. It is not for this Court to pre-empt that commercial decision on grounds of business uncertainty.

Socio economic effects and amenity effects – cumulative effects

[291] In his opening and closing Mr Somerville QC identified the following adverse socio economic effects:

- (i) societal stress caused by uncertainty; and
- (ii) the effects on tourism.

[292] He identified the following effects on amenity:

- (i) visual – including plume and lighting;
- (ii) traffic effects;
- (iii) noise;
- (iv) change from rural to rural residential and industrial.

[293] During his closing he added verbally:

- (i) dust.

[294] Both Mr Somerville QC and Ms Forret further submitted that the cumulative effects of the proposed cement plant and associated activities must be taken into account. While they submitted that any such cumulative effects should be taken into account under section 104(1)(c) of the Act we consider it more pragmatic to consider the cumulative effects of an alleged effect when discussing the particular alleged effect.

[295] We have already discussed the following matters in this decision:

the effects on tourism;

the visual effects -- including the plume and lighting; and



- the change from rural to rural residential and industrial.

[296] That leaves for our consideration:

- societal stress caused by uncertainty;
- traffic;
- noise; and
- dust.

[297] We were somewhat perplexed by their submission as it related to traffic, dust and noise. The general conditions of consent and the specific conditions of consent contained detailed and complementary conditions that comprehensively address traffic, dust and noise. The conditions of consent that address these matters were agreed to by the experts after caucusing.

[298] Because of the agreement reached on these matters by the experts no expert evidence was called. The planners in their evidence address these matters²¹³, but in each case relied on the evidence of their experts – experts that reached a consensus and were not called.

[299] We have read carefully the comprehensive conditions of consent and we are of the clear view that they adequately address the matters of transport, dust and noise. There are controlled limits imposed, comprehensive monitoring is required and comprehensive management plans have to be prepared and reviewed on an ongoing basis for each matter.

[300] With regard to the social stress caused by uncertainty Mr Somerville QC put it this way:

Mr Fitzgerald confirmed that uncertainty involves risks. We submit that where uncertainty about the use and development of natural and physical resources adversely affects the well-being of the local community, it may be that it is not possible to mitigate the risks in the circumstances because of factors beyond the control of the applicant and that the best risk management approach would be to decline this application.²¹⁴

Their evidence having been prepared before the caucusing of the experts.
²¹⁴ Paragraph 51.4.1.2 of opening.



[301] Mr Somerville QC laid the foundation for this submission by an extensive cross-examination of Mr Fitzgerald, a consultant sociologist called by Holcim, on the cumulative effect on local residents about the past and future uncertainty of the proposal eventuating. Mr Fitzgerald responded:

It is a cumulative effect in people's lives, but the nature of – if I might just talk a little bit about that. The nature of human life is uncertain. The very nature of human existence is risk, which is why we have such a profoundly developed sense of the understanding of risk and why we have institutional systems set up to manage and reduce risk, called insurance and so on. So risk is a natural part of human life, not certainty. Certainty is not what human life is characterised by.

So, this would simply add to the general uncertainty of people's lives. For example, not many of us can predict what we are going to be eating for tomorrow night's meal, okay? So uncertainty is what we live with. As a species we are very good at coping with uncertainty, we adjust to uncertainty, we are flexible, we imagine the future, we have a whole range of tools that we use to try and predict what might happen and prepare ourselves. Clearly people are capable of living with uncertainty and indeed investing considerable sums in their properties, even though they know it is an uncertainty of a development on an existing piece of land that is zoned for a cement plant. So people were capable of living with that uncertainty sufficiently to put significant amounts of their funds into a property.²¹⁵

[302] We accept that there is a degree of uncertainty arising from the planning process and the as yet undecided position of Holcim. Uncertainty is inevitable, particularly with substantial projects with a long lead in time. As Mr Fitzgerald said, people face and cope with uncertainty all the time. It is a factor that of itself would not be sufficient to warrant declining the consent. It is, however, a factor to be put into the mix to weigh and balance as part of the decision making process.

Positive effects

[303] A number of positive effects were identified including:

- (i) There will be immediate district level benefits²¹⁶. The Waitaki district has a declining and ageing population. The plant will use local resources locally. The project in its construction and operational periods will create

²¹⁵ Transcript, pages 367 and 368.

²¹⁶ See particularly the evidence of Mr Fitzgerald, an applied sociologist called by Holcim.



jobs and stimulate local business. The project will enhance and diversify the local economy and help to maintain the district's population.

- (ii) The work opportunities and wealth generation derived from the plant will contribute to the maintenance and enhancement of community facilities, services and infrastructure.
- (iii) There will be flow-on benefits for South Canterbury (especially through the use of the Port at Timaru), and to Coastal North Otago, through the demand for goods and services, both specifically for the project and from within the wider community.
- (iv) Weston will replace the ageing Westport plant with a plant of greater capacity and with a smaller environmental footprint. There will be significant reductions in the discharge of contaminants.

Other matters – section 104(1)(c)

- (i) The Kai Tahu ki Otago Natural Resource Management Plan is relevant. Copies of the relevant provisions are attached to this decision. We have discussed the relevant provisions of the Plan when discussing those matters to which they are relevant. We are satisfied that the proposal is in accordance with the relevant provisions of the Plan.
- (ii) We have discussed the cumulative effects of the proposal earlier in this decision. We have concluded that the proposal, with its complex and detailed conditions of consent, will adequately mitigate the adverse cumulative effects.
- (iii) Alternatives – whether there has been sufficient consideration of alternatives to meet the requirements of Schedule 4 in section 105(1)(c)?



Has there been sufficient consideration of alternatives to meet the requirements of Schedule 4 and section 105(c)?

[304] Mr Cowie gave evidence that since 2004 Holcim has undertaken a comprehensive survey of options for meeting future demand for cement. These include:

- upgrading the Westport cement plant;
- building new cement manufacturing capacity in New Zealand at Westport or elsewhere;
- importing all cement requirements.

As we have indicated, in terms of the second of these options Mr Cowie told us that 18 locations in New Zealand had been considered. Although the applicant's prime considerations appear to have been accessibility of raw materials and energy together with the availability of suitable means of transport and availability of services²¹⁷, the applicant sought the advice of professional advisors on planning and landscape matters in the case of at least some of these sites²¹⁸. Mr Cowie acknowledged that what had been done at any of the other sites did not constitute a full resource management assessment²¹⁹. Nevertheless the evidence is clear that its experts visited the sites concerned to make their assessments rather than simply undertake a desktop exercise.

[305] It was also Mr Cowie's evidence that an assessment of alternatives to the Cement Policy Area near Weston had been undertaken after 2001 and had included other sites within the lower South Island. Following this Holcim had determined that the site of the proposed plant was the most appropriate²²⁰. Mr Cowie noted that alternative sites within its land holding at Weston had been considered, with access provided via Coalpit Road or Airedale Road²²¹.

[306] The Society submitted that this did not constitute sufficient consideration of alternatives sites. During the course of the hearing it promoted an alternative location either on Business 5 zoned land (or alternatively on adjacent land in the Rural-General

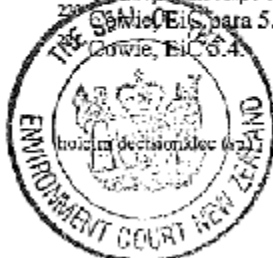
²¹⁷ Cowie, EIC paras 3.1 and 3.3.

²¹⁸ Gimblett, transcript 464.

²¹⁹ Cowie, transcript 65.

²²⁰ Cowie, EIC, para 5.7.

²²¹ Cowie, EIC, para 6.4.



zone) at Pukeuri, north of Oamaru²²². The appellant Society had also suggested prior to the hearing that the Business 4 zone in the north of Oamaru should be considered, but at a meeting of the various planning witnesses, Mr Whitney accepted that a site in that zone would not be appropriate²²³.

[307] The Society also argued that the failure of Holcim to examine alternatives prior to the hearing placed the Court in a position of being unable to evaluate the proposed site in the context of other sites which might have been available and on which the proposal might have had less adverse effects.

[308] Section 88(2) of the Act requires an application:

- (b) to include in accordance with Schedule 4 an assessment of environmental effects in such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

[309] The Fourth Schedule states that where it is likely that an activity will result in any significant adverse effect on the environment, the assessment of effects on the environment (AEE) should include a description of any possible alternative locations or methods for undertaking the activity²²⁴. If the adverse effect is or is likely to be upon a recognised customary activity, the inclusion of a description of possible alternative locations and methods is compulsory.

[310] Section 105(1)(c) concerns applications for discharge permits or coastal permits to do something that would contravene section 15 or 15B of the Act. We accept the submissions of Mr Logan and Mr Christensen that this provision is irrelevant to the case before us, since the discharge permits granted by the Otago Regional Council are not under challenge.

[311] We also refer, as did the Environment Court in *Te Maru O Ngati Rangiwewehi v Bay of Plenty Regional Council*²²⁵, to an established line of cases in the Higher Courts which found that where an objection is raised as to a matter of national importance the question of whether there is a viable alternative site for the activity is relevant. In

²²² Whitney, EIC 158-162.

²²³ Planning Caucus Notes Item 8.

²²⁴ Schedule 4 clause (1)(b).

²²⁵ [2008] 4 EBRNZ 331 para [57].



particular we note the dicta of the High Court in *TV3 Network Services Limited v Waikato District Council*²²⁶:

when an objection is raised as to a matter being of 'national importance' on one site, the question of whether there are viable alternative sites for the proposed activity is of relevance

and of the Privy Council in *McGuire v Hastings District Council*²²⁷ that the various provisions in Part 2 mean "that special regard for Maori interests and values is required" and that in the case of a proposed road designation such regard might cause a reasonably acceptable alternative to be preferred over a route which significantly affected Maori land. We are bound to apply the judgements of the Higher Courts.

[312] Mr Logan noted that the Fourth Schedule merely required the applicant to include a description of any possible alternative locations or methods for undertaking the activity in cases where the activity may have significant adverse effects²²⁸. Counsel for Holcim disputes that there is any evidence of significant adverse effects. However, it was Mr Rackham's evidence that some nearby properties will be significantly affected by the presence of a large-scale industrial plant²²⁹, and Ms Mantell accepted that the rock art sites on the Holcim land are *washi tapu*²³⁰. In consequence recognition and provision for the relationship of Maori with them is a matter of national importance. Consideration of alternatives is clearly required.

[313] However, as we have outlined, it is clear that an assessment of alternatives was undertaken, and included in a section of the AEE covering 14 pages of which some ten deal with alternatives considered for the Weston project. The question is whether consideration has been adequate.

[314] We take it that the Society's complaint that alternatives were not examined before evaluating the proposed site relates only to consideration of alternatives within the Waitaki District. The AEE enables the Court to understand why other locations in New Zealand were rejected for the plant, and in particular to perceive the difficulties in terms of transportation of product, in the most promising alternative locations at Westport or in

²²⁶ [1998] 1 NZLR 360.

²²⁷ [2002] NZRMA 401.

²²⁸ Closing submissions para 8.2.10.

²²⁹ Rackham, EIC 6.26.

²³⁰ Mantell, EIC 5.4.



the King Country²³¹. In the case of Pukeuri ample evidence was provided at the hearing by the applicant, the respondent Council and the appellant to enable us to determine whether sufficient consideration had been given to that site. We observe that the Court has no opportunity to evaluate either the proposed site or alternatives before it receives the evidence.

[315] In the case of Pukeuri there was evidence before the Court that the area adjacent to the Pukeuri freezing works was in or adjacent to a significant coastal landscape²³², that Waitaha considered it a waahi tapu site²³³, and that from the point of view of air discharges, Oamaru would be down-wind of a cement plant located there for a reasonable percentage of the time²³⁴. Additionally Mr Gimblett noted that within the Business 5 zone there are only 12 hectares and they are largely occupied by the meat works. He said that to use land in the vicinity of the Business 5 zone currently zoned rural would involve either rezoning rural-zoned land or gaining resource consent for the use on rural land without the specific support for the activity provided by the Cement Policy Area²³⁵. We also note that a plant built close to the Pukeuri meat works would achieve less segregation at Pukeuri than at Weston. Mr Whitney's evidence was that segregation was a requirement for cement manufacture because of the noxious or dangerous aspects of the activity²³⁶. We consider Holcim had adequate reason not to investigate the possibility of development on that site any further.

[316] As the Planning Tribunal noted in *Transpower NZ Limited v Rodney*²³⁷, there ought to be some limit to what is raised in terms of alternative locations and methods, though it is difficult, except in extreme cases, to prescribe that limit in advance. The tribunal also held that in the circumstances of significant adverse effects it should be open to opponents of the proposal to test (and we presume for the Court to make findings on) the adequacy of the applicant's consideration of alternative locations and methods.

[317] We accept that the effects of the proposal and the objections raised on matters of national importance are such that it is appropriate for us to consider the adequacy of

²³¹ AEE Volume 1, pp 7.2-73.

²³² Rackham, Transcript 213.

²³³ Olsen, Transcript 765.

²³⁴ Harwood, EIC, paragraph 13.

²³⁵ Gimblett, EIC 7.15-7.16.

²³⁶ Whitney, EIC 64 and Transcript p. 1304.



Holcim's consideration of alternatives. In our view Holcim, unlike the applicant in *Te Maru O Ngati Rangiwewehi*, has done much more than give cursory consideration to alternative locations and methods. This applies not only to the sites listed in the AEB but also to the sites proposed by the Society.

[318] It is also significant to note that in terms of the sites owned by Holcim which we have found to be of significance to Maori, the only matter which we have found to be of national importance, Ms Symon, who is qualified to give evidence on the conservation of Maori rock art sites, noted that the proposed area of development has been adjusted to avoid direct impact on them, and that the potential for dust from the plant to damage two of the sites is to be managed via a Rock Art Management Plan. We have recorded Mr Higgin's evidence on the adequacy of conditions to address matters of concern to Māori. We are satisfied on the evidence that Holcim gave reasonable considerations to the level appropriate in view of the adverse effects and Part 2 matters we have identified in this case.

Exercise of discretion

[319] We now have to exercise our discretion in the context of the background we have described and the findings we have made on the contested issues. We have had regard to such of the matters listed in section 104 of the Act as are relevant. The exercise of our discretion requires us to make a judgment in terms of section 104B of the Act to grant or refuse consent. That judgment has to be made to achieve the purpose of the Act stated and defined in section 5, and in compliance with the relevant directions in the other sections of Part 2 of the Act, recognising that they are subordinate and accessory to the purpose of the Act²³⁸.

[320] In exercising our discretion an overall broad judgment is needed, which allows for a comparison of the conflicting considerations, the scale or degree of those, and their relevant significance or proportion in the final outcome²³⁹.

²³⁸ See *Auckland City Council v Auckland Regional Council* [1999] NZRMA 145, 207; *Application by Canterbury Regional Council* [1995] NZRMA 110, 126; *Judges' Bay Residents Association v Auckland Regional Council*, Environment Court Decision A79/1998, paragraphs 404, 406; and *Mahuta v Waikato Regional Council and Anchor Products*, Environment Court Decision A091/1998, paragraphs 228-229.
²³⁹ See *Shirley Primary School v Telecom Mobile* [1999] NZRMA 66; *Green and McCahill Properties Limited v Auckland Regional Council* [1997] NZRMA 519; *Trio Holdings Limited v Marlborough District Council*, Environment Court Decision W103A/1996; and *Solid Energy New Zealand Limited v Grey District Council*, Environment Court Decision A008/1998.



[321] In carrying out that task we are conscious of the scale of the project; the positive effects that will result if approval is given; the technology and the management skills that will need to be applied to its implementation; its consequential impact on the existing environment, particularly the immediate environment; the economic effects on the district as well as the wider economic effects; the effects on tourism and the need to consider alternatives. We are especially sensitive to the evidence bearing on the cultural implications for those Māori who have hereditary affiliation with the Waiaraka Valley and the Te Ana Raki massif.

[322] Having deliberated on all that we have been told, including all that emerged as a result of cross-examination and questions from the Court, we have arrived at the conclusion that we must exercise our discretion in favour of the application subject to the proposed conditions of consent annexed as Appendix 1.

Determination

- (i) The appeals are dismissed save for the amendments to the conditions of consent in accordance with Appendix 1; and
- (ii) The consent of the Waitaki District Council for the construction and operation of a cement manufacturing plant and associated activities at Weston is confirmed, save for the amended conditions of consent in Appendix 1.
- (iii) Costs are reserved. But it is our tentative view that costs should lie where they fall. Any costs application is to be made within 14 working days.

DATED at Auckland this 13th day of August, 2009.

For the Court:

R. Gordon Whiting

R Gordon Whiting
Environment Judge



PROPOSED CONSENT CONDITIONS

9 March 2009



GENERAL CONDITIONS



**GENERAL CONDITIONS TO APPLY TO ALL CONSENTS THAT RELATE JOINTLY
TO OTAGO REGIONAL COUNCIL & WAITAKI DISTRICT COUNCIL**

Notes:

- "The Act" means the "Resource Management Act 1991";
- For the Purposes of these consents, "Consent Authority" means either the Otago Regional Council or the Waitaki District Council, singly or jointly, as the case may require, in relation to their respective functions and powers.
- "Quarry or quarry sites" mean:
 - (a) The limestone and siltstone quarry at Weston.
 - (b) The tuff quarry at Weston.
 - (c) The sand extraction site at Windsor.
 - (d) The coal pit at Ngapara.

A1 Method of Operations

- A1.1 All activities authorised by these consents shall be undertaken generally in accordance with the information contained in the Applications and Assessment of Environmental Effects dated February 2007 and all supporting technical documents and plans, except to the extent where such material or part thereof is inconsistent with these conditions. If there is any inconsistency, those conditions shall prevail.

A2 Notification of exercise of consent and the ceasing of activities

- A2.1 The Consent Holder shall notify the Consent Authority in writing of its intention to commence construction of the cement plant or open up the quarry sites at least two months before, but not more than six months before, the commencement of these activities.
- A2.2 Notwithstanding the requirements of Condition A2.1, the Consent Holder shall notify the Consent Authorities in writing as soon as practical of the date that activities first commenced under these consents.
- A2.3 The Consent Holder shall notify the Consent Authority in writing of the intention to cease the manufacturing of cement or the extraction of any minerals authorised by this consent at the time that this decision is made.



A3 Lapsing of Consents

- A3.1 Pursuant to Section 125(1) of the Act all resource consents shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grants a longer period of time.

A4 Review of Conditions

- A4.1 Pursuant to Section 128(1) of the Act, the Consent Authority may review any of the conditions of these consents [except for the air discharge permit for the plant] within three months of receiving an Annual Work and Rehabilitation Plan by serving notice on the Consent Holder for the purposes of:
- (a) Dealing with any adverse effect on the environment which may arise from the exercise of the consents which is appropriate to deal with at a later stage;
 - (b) Requiring the holder of any discharge permit to adopt the best practicable option to remove or reduce any adverse effect on the environment;
 - (c) Ensuring that the conditions are appropriate and effective in managing the effects of activities permitted by these consents;
 - (d) Ensuring that rehabilitation is completed in a manner anticipated by the conditions of these consents; and
 - (e) Assessing the appropriateness of any imposed compliance standards, monitoring parameters, monitoring regimes and monitoring frequencies in the conditions of these consents and to alter these accordingly.

A5 Construction Management Plan

- A5.1 Prior to the exercise of these consents, the Consent Holder shall prepare and submit a Construction Management Plan to the Consent. The Construction Management Plan shall apply to all works up to and including the completion of the commissioning of the cement plant.
- A5.2 The objective for the Construction Management Plan shall be to set out the practices and procedures to be adopted to ensure compliance with consent conditions and otherwise to minimise the effects of construction activities.
- A5.3 To achieve the objective the Construction Management Plan shall provide, at a minimum, for the following:
- (a) The construction programme;
 - (b) A description of the potential sources of noise and the methods to be used to meet Conditions B2.1, C2.1, D2.1 and E2.1, to minimise the emissions of noise and associated effects on the environment during construction, including the provision of earth bunding within the first three months of earthworks commencing;
 - (c) The anticipated volumes and routes of construction-related traffic, including over-weight and over-dimension vehicles, and the methods to be used to avoid or minimise the effects of construction traffic and associated effects on the environment during construction. This includes the necessary road and access management procedures to be put in place;



- (d) The potential sources of water and associated discharges and the methods to minimise silt and other contaminants from being discharged into the environment, including the provision of retention and treatment systems prior to works commencing;
 - (e) Methods related to the control of dust, including water carts or fixed sprinklers, controls on speed limits, and regular maintenance of roads; and
 - (f) Methods to ensure amenity and screen planting are undertaken within the first planting season following completion of earthworks.
- A5.4 Prior to finalising the Construction Management Plan, the Consent Holder shall provide an opportunity for the Community Liaison Group to provide input and feedback into preparation of the Plan.
- A5.5 Following the completion of the process outlined in Condition A5.4, the Consent Holder shall provide the Management Plan to the Consent Authorities.
- A5.6 A copy of the latest version of the Construction Management Plan shall be kept on all sites at all times and all key personnel shall be made aware of Plan's contents.
- A5.7 Copies of the Construction Management Plan shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.
- A5.8 The Construction Management Plan shall be reviewed at least once every six months. Prior to any review the Consent Holder shall provide the opportunity for the Community Liaison Group to discuss the results of any monitoring and discuss any issues arising during construction.
- A5.9 The review shall assess whether management practices are resulting in compliance with the conditions of these consents, and whether the objective of the Construction Management Plan is being met through the actions and methods undertaken. The review may result in amendments that are necessary to better achieve the objective of the Plan.
- A5.10 Following the completion of the process in Condition A5.9 above, the Consent Holder shall provide the amended Construction Management Plan to the Consent Authorities, along with the Consent Holder's review reports on the Management Plan, any associated expert reports, and a copy of discussion and issues raised by the Community Liaison Group.
- A5.11 Subject to any other conditions of these consents, all activities shall be undertaken in accordance with the latest version of the Construction Management Plan.
- A5.12 The Consent Holder shall inform the Consent Authorities in writing when commissioning is completed and when this Plan no longer applies.

A6 Annual Work and Rehabilitation Plan

- A6.1 Prior to the exercise of these consents, the Consent Holder shall prepare and submit an Annual Work and Rehabilitation Plan for each of the quarry sites to the Consent Authorities. The purpose of the Plan is to document the work carried out over the past 12 months, to indicate the works planned for the coming 12 months,



to provide details on progress towards final rehabilitation as required by the land use consents for the quarry sites, to provide a basis for calculating part of the bond quantum in accordance with the conditions in A13, and to demonstrate compliance with these consent conditions.

- A6.2 Copies of the Annual Work and Rehabilitation Plans should be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.
- A6.3 The Annual Work and Rehabilitation Plans shall include:
- (a) A detailed description of the following activities completed in the last 12 months:
 - (i) The volume of material excavated from the quarries;
 - (ii) The construction or partial construction of any engineered landforms, overburden stockpiles, roads/tracks, any other bulk earthworks, any landform modification undertaken, and other stockpiles;
 - (iii) The construction of any buildings;
 - (iv) Rehabilitation, including:
 - any recovery, storage, conservation or reuse of topsoil or subsoil;
 - re-contouring or shaping of land or works; and,
 - revegetation work carried out on disturbed surfaces.
 - (b) An explanation of any departure from the previous Annual Work and Rehabilitation Plan.
 - (c) A description and analysis of any adverse effect on the environment that has arisen as a result of the exercise of the consent in the last 12 months, and the steps taken to deal with it, and the results of those steps.
 - (d) A detailed description of the following activities proposed in the next 12 months:
 - (i) The volume of material excavated from the quarry;
 - (ii) The construction or partial construction of any engineered landforms, overburden stockpiles, roads/tracks, any other bulk earthworks, any landform modification undertaken, and other stockpiles;
 - (iii) The construction of any buildings;
 - (iv) Rehabilitation, including:
 - any recovery, storage, conservation or reuse of topsoil or subsoil;
 - re-contouring or shaping of land or works;
 - revegetation work carried out on disturbed surfaces.
 - (e) Plans showing the actual footprints of all works and structures and any proposed changes at the end of the next 12 months;
 - (f) Plans showing the actual contours of all works and structures and any proposed changes in contours at 5 metre intervals at the end of the next 12 months;
 - (g) A detailed description of any seeding and induced weathering treatments completed on the limestone/siltstone quarry faces; and
 - (h) Any other information required by the conditions of consent.



- A6.4 Following the submission of the first Annual Work and Rehabilitation Plan for each site in accordance with Condition A6.1, the Consent Holder shall submit an Annual Work and Rehabilitation Plan no later than one month prior to each anniversary of that date. The Consent Holder may, at any time, amend and resubmit an Annual Work and Rehabilitation Plan to the Consent Authority provided it complies with all other conditions of the consents.
- A6.5 The Consent Holder shall provide the Consent Authorities with any further information, or report, which the Consent Authorities may reasonably request after considering any Annual Work and Rehabilitation Plan. This information or report shall be provided in the time and manner required by the Consent Authority.

A7 Community Liaison Group

- A7.1 The Consent Holder shall, at or before the time that it provides notice to the Consent Authority that it intends to commence construction activities under Condition A2.1, undertake an open, public process to offer local residents and interested people the opportunity to be part of a Community Liaison Group.
- A7.2 Any such Community Liaison Group shall maintain a balanced representation and shall as a minimum consist of:
- (a) One representative of each of the communities adjacent to the four application sites and one representative from Weston;
 - (b) One representative of the Consent Holder; and
 - (c) Any other key stakeholders considered appropriate by those members of the group appointed under Conditions A7.2a and b.
- A7.3 At least one representative of the Consent Holder shall attend all meetings of the Community Liaison Group.
- A7.4 At least one representative from Waitaki District Council and the Otago Regional Council (in a resource consent regulatory capacity) shall be invited to attend meetings.
- A7.5 The Community Liaison Group shall, unless otherwise agreed by the group, meet at least once every six months and carry out an inspection of the cement plant and quarry sites at least once every year.
- A7.6 The Community Liaison Group shall be provided with any information to which the consent authorities are entitled by virtue of these consents, at the Consent Holder's expense.
- A7.7 The main purpose of the meetings of the Community Liaison Group is to:
- (a) Enable the Consent Holder to explain the progress of the various activities;
 - (B) Provide input and feedback into the preparation, implementation, review and adaption of the construction management plan, noise management plan, transport management plan, limestone vegetation restoration plan, lighting management plan, closure and final rehabilitation plans, and environmental management plans required by regional council consents;



- (c) Receive and discuss the results of monitoring and reporting as required by the conditions of these consents;
- (d) Discuss and make recommendations to the consent holder regarding any community concerns regarding the effects of the exercise of these consents, including any social impact monitoring considered necessary;
- (e) Receive reports on actions taken by the Consent Holder on any concerns raised; and
- (f) Discuss and make recommendations to the Consent Holder regarding any social impacts related to the construction and operational workforces.

A7.8 The Consent Holder shall provide the necessary support and meet the reasonable costs of the Community Liaison Group undertaking its function in accordance with the conditions of these consents.

A8 Complaints

A8.1 The Consent Holder shall maintain a register of complaints and whenever a complaint is received, it shall:

- (a) Record the details of the name and address of the complainant and the time of the complaint;
- (b) Record a description of the issue, including the date and time, and identify the cause of the complaint and any action taken in response to the complaint;
- (c) Upon request of the Consent Authorities, provide details of any complaints and action taken; and
- (d) Report the details of the complaint and action taken to the next meeting of the Community Liaison Group.

A9 Non Compliance

A9.1 If any breach of these consents occurs, the Consent Holder must notify the relevant Consent Authority within 48 hours of the breach being discovered. Within seven days of any breach, the Consent Holder must provide written notification to the Consent Authority with an explanation of the cause of the breach, the steps which were taken to remedy the breach and the steps which will be taken to prevent any further occurrence of the breach.

A10 Community Trust

A10.1 Prior to commencing construction of the cement plant or opening up any of the quarry sites, the Consent Holder shall establish a charitable trust to be registered under the Charities Act 2005 ("the Trust"). The Trust shall have the general charitable purposes of providing a public benefit to the communities and areas surrounding the application sites, through providing and maintaining facilities and support for the communities and areas. The Trust shall not result in private financial profit.

A10.2 The Consent Holder shall settle on the Trust an initial contribution of \$100,000 within 20 days of the Trust achieving registration under the Charities Act 2005.



A10.3 From the time that the Consent Holder commences commercial manufacturing of cement the Consent Holder shall make an Annual Contribution to the Trust. The Annual Contribution shall be calculated at a rate of 5 cents per tonne of cement produced, inflation adjusted based on percentage increase in the producers price index.

A11 Progressive Rehabilitation

A11.1 The Consent Holder shall undertake Progressive Rehabilitation and Revegetation of the quarry sites, the coal pit and the engineered landforms as operational activities allow, to achieve an outcome generally in accordance with the Landscape Masterplans presented as Figures 7, 8 and 9 attached and in accordance with the following objectives:

- (a) Minimising sediment generation and runoff;
- (b) In the medium term returning the disturbed land identified for pasture to a state where it could be appropriate for pastoral use;
- (c) Reinstating natural drainage patterns as far as practicable, and avoiding the formation of unwanted ponding areas; and
- (d) Planting and maintaining vegetation (whether pasture grasses, amenity and shelter trees, or indigenous shrub, riparian or wetland plantings) so that it is self-sustaining.

A11.2 The permanent plantings shall generally follow the species listed in Schedule 1: *Provisional Plant Species List*, attached, other than those areas to be re-established in pasture grass in accordance with the Landscape Masterplan referred to in Condition A11.1.

A11.3 The Consent Holder shall stockpile topsoil and/or subsoil from any disturbed ground, unless the soil is required to be left in place to protect water and soil values. All salvaged soil, where possible, shall be used for rehabilitation purposes. Prior to any topsoil or subsoil stripping, a report from a suitably qualified and experienced expert will be forwarded to the Consent Authorities, outlining in detail the methods to recover and store the soil in order to demonstrate that the soils will not degenerate over time during storage. The Consent Holder shall implement the methods recommended in the experts' report.

A11.4 All land disturbed by mining or any other work, other than active quarry or pit areas, shall be progressively rehabilitated and revegetated in accordance with the above conditions, although any features to be constructed for a temporary period or any land proposed to be re-disturbed at a later date may be planted in appropriate grasses or other fast establishing species.

A11.5 The Consent Holder shall use its best endeavours to seed and treat all limestone/siltstone quarry faces once work on those faces has been completed in order to reduce the reflectivity or brightness of the faces.

A12 Closure and Final Rehabilitation

A12.1 The Consent Holder shall submit a detailed Closure and Final Rehabilitation Plan to the Consent Authorities at least two years prior to each of the following:

- (a) The closure of the cement plant; and



- (b) Completion of the mineral extraction activities at each of:
- (i) The limestone and siltstone quarry at the Weston site;
 - (ii) The tuff quarry at the Weston site;
 - (iii) The sand quarry at the Windsor site;
 - (iv) The coal pit at the Ngapara site.

A Closure and Final Rehabilitation Plan shall include as a minimum those matters set out in Condition A12.5 and implementation of a Plan shall commence no later than the date of closure of the cement plant or the completion of mineral extraction activities. The purpose of the Plan is to demonstrate compliance with the closure and rehabilitation conditions of the consents.

A12.2 If the cement plant ceases operation for a continuous period of two years, it shall be deemed closed, and a Closure and Final Rehabilitation Plan shall be submitted to the Council and shall be implemented as soon as is practicable, but within 12 months.

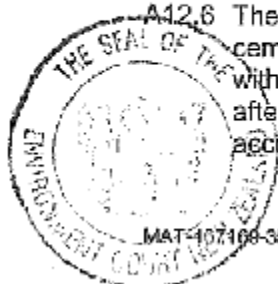
A12.3 If any of the quarries or pits cease operation for a continuous period of two years, the quarry or pit shall be deemed closed and a Closure and Final Rehabilitation Plan shall be submitted to the Council and shall be implemented as soon as is practicable, but within 12 months.

A12.4 Any Closure and Final Rehabilitation Plan shall be prepared in consultation with the Community Liaison Group and a summary of that consultation shall be attached with the Plan submitted to the Consent Authorities.

A12.5 The Plans shall include as a minimum:

- (a) A description of how the sites would be tested for contaminants and the proposed methods to remedy a site if any are found;
- (b) A description of any rehabilitation of the land, including contouring and revegetation beyond that specified in a relevant Annual Work and Rehabilitation Plan;
- (c) A description of how any site would be prepared for pastoral farming or any other appropriate ongoing use;
- (d) Any proposed monitoring or testing and how this would be put in place;
- (e) A description of how buildings are going to be removed from the site and disposed of;
- (f) The final design of all works and structures;
- (g) A plan of the intended final contours, drawn at five metre contour intervals, of all permanent structures and works, including pits, engineered landforms and roads;
- (h) A plan showing intended final footprints for all residual works and structures;
- (i) Details of final vegetation;
- (j) Details of measures to protect public safety, such as appropriate fencing around pits to prevent access; and,
- (k) Details of management, maintenance, monitoring and reporting proposed by the Consent Holder for the completion of rehabilitation.

A12.6 The Consent Holder shall remove all buildings, plant and equipment at the cement plant and / or at a quarry (whether attached to the land or not) associated with the exercise of this consent. This work shall take no longer than five years after the closure of the cement plant and the work shall be carried out in accordance with the Closure and Final Rehabilitation Plan.



This condition does not apply to:

- (a) Any permanent engineered landform, siltponds, stormwater retention structures and ponds, road or other work and any associated plant and equipment which under this or any other resource consent is permitted or required to remain after this consent expires; or
- (b) Any monitoring structure required by this or any other resource consent to remain after the expiry of any consents.

A12.7 The Consent Holder shall locate, form and shape all final features so that their profiles, contours, skylines and transitions closely resemble and blend with the surrounding natural landforms. This work shall take no longer than six years after the closure of the cement plant, and the work shall be carried out in accordance with the Closure and Final Rehabilitation Plan. The Consent Holder shall engage a suitably qualified landscape architect to verify that this condition has been met, and provide a report on the matter to the Consent Authorities.

A12.8 The Consent Holder shall ensure all vegetation cover, including pasture vegetation, is self-sustaining by Completion of Closure of the cement plant or mineral extraction at the quarry site. The Consent Holder shall engage a suitably qualified and experienced expert to verify that this condition has been met, and provide a report on the matter to the Consent Authorities.

A12.9 The Consent Holder must carry out rehabilitation of all sites in accordance with the final site rehabilitation plans and the conditions of this consent.

A13 Ngapara Coal Pit and Weston Quarries Performance Bonds

A13.1 The Consent Holder must provide and maintain in favour of the Consent Authorities one or more performance bonds in respect of the Ngapara Coal Pit and Weston Quarries. At the option of the Consent Authorities, the Consent Holder may be required to provide a separate performance bond to each Consent Authority. In these conditions "performance bond" includes one or more bonds.

A13.2 The purposes of the performance bond are to secure:

- (a) Compliance by the consent holder with the conditions of consent (including any condition that relates to an adverse effect on the environment that becomes apparent during or after the expiry of the consent);
- (b) Remediation of any adverse effect on the environment from the exercise of this consent; and
- (c) Completion of closure and rehabilitation in accordance with the Closure and Final Rehabilitation Plans.

A13.3 The performance bond must be in a form approved by the Consent Authorities and shall be on the terms and conditions approved by the Consent Authorities.

A13.4 The performance bond must be completed and provided to the Consent Authorities six months before the first exercise of this consent.

A13.5 Despite the performance bond the Consent Holder remains liable under the Act for any breach of the conditions of the consent that occurs before the expiry of



the consent and for any adverse effect on the environment which becomes apparent during or after the expiry of the consent.

A13.6 The liability of the Consent Holder is unlimited and is not limited to the amount of the bond.

A13.7 The performance bond must be guaranteed by a guarantor acceptable to the Consent Authorities. The liability of the guarantor may be limited to the amount of the bond.

A13.8 The guarantor must bind itself to pay for the carrying out and completion of any conditions in the consent on the default of the Consent Holder or the occurrence of any adverse effect on the environment requiring remedy.

A13.9 The minimum term of the performance bond shall be three years.

A13.10 The amount of the performance bond may vary from time to time.

A13.11 The amount of the performance bond shall include at any given time:

- (a) The estimated costs of complete rehabilitation and site closure in accordance with the conditions of the consents and any relevant management plans;
- (b) Any further sum which is reasonably necessary to remedy any adverse effect on the environment that may become apparent during or after the expiry of the consent;
- (c) The estimated costs of monitoring rehabilitation and site closure measures;
- (d) The estimated costs of investigation and analysis of any adverse effect and the prevention, remediation or mitigation of an adverse effect;
- (e) Provision for contingencies;
- (f) Estimated administration and operating costs, including provision for the time of staff of the consent Authorities and for the fees of consultants and contractors the Consent Authorities might reasonably expect to engage; and
- (g) An allowance for cost escalation.

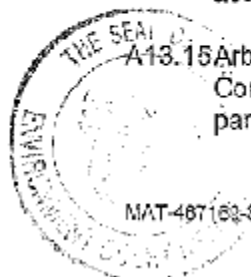
A13.12 The Consent Holder must, within 90 days of the commencement of consent, provide the Consent Authorities with a report which deals with all the matters in A13.11 and:

- (a) Identifies the matters to be bonded for;
- (b) Estimates the costs; and
- (c) Recommends the initial amount of the bond.

A13.13 The Consent Authorities shall review the report and give notice, within 60 days of receipt of the report, of the amount of the bond.

A13.14 If the Consent Holder does not agree with the amount of the bond fixed by the Consent Authorities, then the Consent Holder may, within 14 days, give notice to the Consent Authorities that it wishes to have the matter referred to arbitration in accordance with the Arbitration Act 1996.

A13.15 Arbitration shall be commenced by the Consent Holder giving written notice to the Consent Authorities advising that the amount of the bond is in dispute and particularising the matters which are in dispute.



A13.16 If the Consent Holder and the Consent Authorities cannot agree on an arbitrator within seven days of the notice of the arbitration, then the arbitrator shall be appointed by the President of the Institute of Professional Engineers of New Zealand.

A13.17 The arbitrator must give an award in writing to the parties within 30 days of appointment, unless the parties agree to extend the time for giving a decision.

A13.18 The Consent Holder must pay the costs of the Arbitrator and meet the full and reasonable costs of the Consent Authorities in connection with the arbitration.

A13.19 The amount of the performance bond shall be received annually by the Consent Authorities. In each Annual Work and Rehabilitation Programme, the Consent Holder must provide its calculation for the amount of the performance bond for the next year. The Annual Work and Rehabilitation Programme must include the information in A13.11 and A13.12. Conditions 13.11 to 13.18 shall apply with any necessary modifications.

A13.20 Pending the outcome of the review, but subject to the next condition, the existing bond continues in force. The amount of the bond must be adjusted in accordance with the arbitration decision.

A13.21 If the arbitrator's decision is not made within 30 days of the arbitrator's appointment, then the amount of the bond shall be the sum fixed by the Consent Authorities until such time as the arbitrator gives an award in writing. At that time the amount of the bond must be adjusted to conform with the arbitrator's decision.

A13.22 When the Consent Holder submits a Closure and Final Rehabilitation Plan under Condition A12.1, the Consent Holder must provide to the consent authorities a report which:

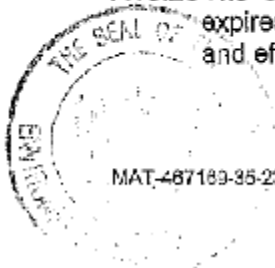
- (a) Identifies the matters to be bonded for;
- (b) Estimates the costs; and
- (c) Recommends the initial amount of the bond.

Conditions A13.11 to A13.21 (inclusive) shall apply with any necessary modifications.

A13.23 If, as a result of the decision of the Consent Authorities or of the arbitrator, or of the conditions of consent, the amount of the bond is to be increased, the Consent Holder must lodge a new bond or a variation of the bond with the Consent Authorities within 20 working days. The existing bond shall continue in full force and effect until the new bond is lodged with the consent authorities. The consent holder must cease the exercise of the consent if it fails to comply with this condition.

A13.24 These consents shall not be exercised until the performance bond has been executed by the Consent Holder and guarantor and lodged with the Consent Authorities.

A13.25 The Consent Holder must cease exercising these consents if the bond lapses, expires or otherwise comes to an end and no replacement bond is in full force and effect and lodged with the consent authorities.



A13.26 The bond may be varied, cancelled or renewed at any time by agreement between the Consent Holder and Consent Authorities, providing that cancellation shall not be agreed to unless a further or new bond acceptable to the Consent Authorities has been executed by the Consent Holder and guarantor and lodged with the Consent Authorities.

A13.27 Section 109(1) of the Resource Management Act 1991 applies to any bond.

A13.28 The Consent Authorities may accept in place of a bond a cash deposit for the amount of the bond. If a cash deposit is paid, then interest which is earned on the deposit shall accrue to the consent authorities. If the deposit is repaid to the Consent Holder, the Consent Holder shall be entitled to receive all accrued interest, less resident withholding tax and bank fees, unless the consent authorities have had to use the deposit or any part of it in dealing with any matter for which the bond has been provided. The Consent Authorities shall provide the Consent Holder with a full statement of account for the money received and expended.

A13.29 All costs of the Consent Holder and the Consent Authorities in providing, reviewing, varying or renewing any bond must be paid by the Consent Holder.

A13.30 The performance bond shall be released when all Closure and Final Rehabilitation Plans have been completely implemented.

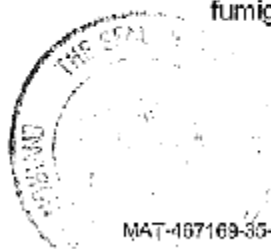
A14 Meteorological Assessment Report

A14.1 Prior to the commencement of construction of any part of the cement plant, a report shall be prepared by a suitably qualified and experience expert, to demonstrate that the detailed design of the cement plant has taken into account the results of the meteorological data collected under Conditions A14.2 and 14.3 below, and thereby would be in compliance with conditions related to discharges to air set out in Otago Regional Council Consent 2007.178 and conditions related to noise emissions set out in Consent LRC07/08a. The report shall be forwarded to the Consent Authorities.

A14.2 The meteorological studies shall include, but not be limited to:

- (a) The meteorological data collection programme required by Condition 40 of Otago Regional Council Consent 2007.178; and
- (b) Two surveys at least six months apart to determine:
 - (i) The depth and height of the temperature inversions;
 - (ii) The occurrence of light winds aloft during strong temperature inversions; and
 - (iii) The frequency and duration of dispersion break-up (fumigation) conditions.

A14.3 The measurement of the depth of temperature inversions under Condition A14.2 is to be undertaken using a Doppler Sounder (or an equivalent system to the satisfaction of the Consent Authority). The measurement of light winds aloft and fumigation conditions may involve the use of a tethered balloon.



**GENERAL CONDITIONS TO APPLY TO ALL CONSENTS THAT RELATE TO
WAITAKI DISTRICT COUNCIL**

A15 Management Plans – General

A15.1 Prior to the exercise of these consents, the Consent Holder shall prepare and submit to the Consent Authority for certification to ensure they satisfy the conditions of consent, the following Management Plans for each of the sites to which these consents relate:

- (a) A Transport Management Plan that covers all traffic associated with the project;
- (b) A Noise Management Plan for each site;
- (c) A Limestone Vegetation Restoration Plan for the area defined in Figure 1; and
- (d) A Lighting Management Plan for each site.

A15.2 Each Management Plan and review thereof shall be certified by a suitably experienced and qualified expert to confirm that activities undertaken in accordance with the Management Plan will achieve compliance with the relevant consent conditions.

A15.3 Subject to any other conditions of these consents, all activities shall be undertaken in accordance with the latest version of the Management Plans.

A15.4 The Management Plans shall be reviewed at least once every five years by the Consent Holder and may be amended accordingly to take into account any changes required.

A15.5 The review shall assess whether management practices are resulting in compliance with the conditions of these consents, and whether the objectives of the Management Plans are being met through the actions and methods undertaken. The review shall result in amendments that are necessary to better achieve the objectives of the Management Plans.

A15.6 Prior to finalising the Initial Management Plans, and then prior to the review of, and any amendments to, each Management Plan, the Consent Holder shall provide an opportunity for the Community Liaison Group to:

- (a) Provide input and feedback into the initial preparation, review and adaption of the Management Plans; and
- (b) Receive and discuss the results of all monitoring and reports as required by the conditions of these consents.

A15.7 Following the completion of the process outlined in Condition 15.5 above, the Consent Holder shall provide the amended Management Plans to the Consent Authority, along with the Consent Holder's review reports on the Management Plans, and any associated expert reports.

A15.8 A copy of the latest version of the Management Plans shall be kept on site at all times and all key personnel shall be made aware of each Management Plans' contents.



A15.9 Copies of the Management Plans shall be lodged in the Weston School library (subject to their approval) and the Camaru Public Library so there is public access to them.

A16 Transport Management Plan

A16.1 The objective for the Transport Management Plan shall be to set out the practices and procedures to be adopted to minimise the effects of traffic generated by activities authorised by this Consent.

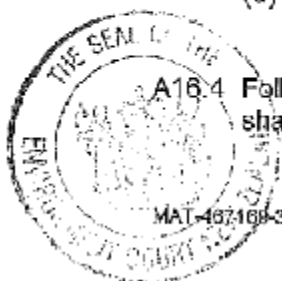
A16.2 To achieve the objective, the Transport Management Plan shall include at a minimum, the following:

- (a) Identification of the transport routes for heavy vehicles;
- (b) Methods employed to encourage heavy vehicles to use the preferred and specified transport routes identified with the application;
- (c) Methods to ensure vehicles and pedestrians can cross the railway line safely;
- (d) Contingency planning arrangements for the transportation of cement in the event of a rail outage;
- (e) Methods to prevent or minimise discharges onto roads from heavy vehicles;
- (f) Methods to avoid or minimise conflict between heavy vehicles and school buses;
- (g) Methods to minimise traffic movements past the Weston School in the period prior to the start of the school day and in the period following the end of the school day;
- (h) A summary of driver training and education procedures to be adopted by the Consent Holder;
- (i) Routes for transporting oversized or overweight loads by road;
- (j) Maximising the use of rail to move materials, machinery and equipment to the cement plant site, both during and after construction;
- (k) Maximising the use of rail to transport cement from the cement plant site and correspondingly minimising the movement of trucks carrying cement to and from the cement plant site;
- (l) Methods to minimise staff related traffic using the roads at peak periods, including the use of staff buses and the staggering of shifts from peak periods; including peak periods of traffic associated with the opening and closing of the Weston School; and
- (m) Methods to minimise the noise of heavy vehicles in Weston.

A16.3 Prior to the exercise of these consents, the Consent Holder shall obtain a report from a suitably qualified and experienced expert, setting out:

- (a) The options for improving road safety for traffic, cyclists and pedestrians at and adjacent to the Weston School;
- (b) The options for treating the Main Street (west) and Airdale Road intersection, having regard to those matters under condition a) above;
- (c) An assessment of the advantages, disadvantages and costs of each option; and
- (d) Recommendations for which option/s should be implemented by the Consent Holder.

A16.4 Following receipt of the report specified in Condition A16.3, the Consent Holder shall undertake consultation with representatives of Weston School and any other



party identified by the Consent Authority regarding the content of the report. Subsequent to this consultation process a summary document shall be prepared setting out the views of the parties consulted.

A16.5 Following completion of consultation required by Condition A16.4, the Consent Holder shall provide to the Consent Authority:

- (a) A copy of the report specified in Condition 16.3;
- (b) A copy of the summary document specified in Condition 16.4; and
- (c) A document summarising the Consent Holder's responses to the views of the parties consulted under Condition 16.4.

A16.6 Copies of the Transport Management Plan shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.

A16.7 Pursuant to Sections 128 and 129 of the Resource Management Act, the Consent Authority may, within two months of receiving those documents set out in Condition 16.5, review Conditions A16 and A26.1 (which includes reviewing the list of required roading and pedestrian improvements shown in Schedule 2) to ensure that the conditions are adequate to avoid, remedy or mitigate the adverse effects of traffic generated by the activities authorised by this consent, in particular in the vicinity of Weston School.

A18 Noise Management Plan

A18.1 The objective for the Noise Management Plan shall be to set out the practices and procedures to be adopted to ensure compliance with consent conditions and otherwise to minimise the effects of noise generated by activities authorised by this Consent.

A18.2 To achieve the objective, the Noise Management Plan shall include at a minimum, the following:

- (a) A description of the activities authorised by the consents which generate noise;
- (b) A description of any noise monitoring and reporting requirements set out in the resource consent conditions;
- (c) A description of noise management measures and the methods used to minimise noise at and from a site;
- (d) A description of detailed vehicle or plant specifications and vehicle maintenance requirements to avoid excessive noise production (e.g. silencers, mufflers) and details of speed restrictions placed on parts of the site to minimise noise;
- (e) A description of any shield, enclosures or barriers to minimise noise; and,
- (f) A description of the methods used to minimise noise from loading and operation of the train at the plant site.

A18.3 Copies of the Noise Management Plan shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.



A19 Limestone Vegetation Restoration Plan

A19.1 The objective for the Limestone Vegetation Restoration Plan shall be to restore an area of indigenous vegetation associated with the limestone escarpment, as identified on Figure 1 attached with this consent.

A19.2 To achieve the objective, the Limestone Vegetation Restoration Plan shall include:

- (a) Methods to prevent stock access;
- (b) Methods to manage weed and pest species; and
- (c) Methods to reintroduce key species associated with limestone outcrops considered necessary for the restoration to succeed.

A19.3 Copies of the Limestone Vegetation Restoration Plan shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.

A20 Lighting Management Plan

A20.1 The objective for the Lighting Management Plan shall be to set out the practices and procedures to be adopted to ensure compliance with consent conditions and otherwise to minimise the effects of spill lighting and glare.

A20.2 To achieve the objective, the Lighting Management Plan shall include at a minimum, the following:

- (a) A description of the activities and structures authorised by the consents which will contain lighting sources that are externally visible;
- (b) A description of lighting management measures and the methods used to minimise spill light and glare;
- (c) A description of the luminaire selection for various areas and activities; and
- (d) A description of the methods used to direct and shield exterior lighting and a description of how building design and the use of bunds and plantings have been integrated into spill lighting and glare mitigation.

A20.3 Copies of the Lighting Management Plan shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.

A21 Social Effects

A21.1 Prior to any construction activity occurring the Consent Holder shall, through construction contractors as necessary, endeavour so far as is reasonably practicable to:

- (a) Recruit workers who live within daily commuting distance of the cement works as a priority;
- (b) Provide for long distance commuting practices, where appropriate;
- (c) Avoid establishing a construction workers' camp by utilising available local housing;



- (d) Make allowance for establishing workers and their families in the local area including Oamaru, where services, schools and clubs are well established;
- (e) Ensure a process of carefully vetting job applicants; and
- (f) Establish a code of conduct for commuting and temporarily resident construction workers.

A21.2 The Consent Holder shall develop and undertake a comprehensive social impact monitoring programme in conjunction with a suitably qualified and experienced Impact Assessment Specialist. This programme shall be effective during both the construction and operation of the cement plant. The Impact Assessment Specialist may make recommendations on additional measures the Consent Holder could take to avoid, mitigate or remedy the effects on the community of the exercise of this consent.

A21.3 The social impact monitoring programme shall be linked to the system to record and respond to complaints (Condition A8) and to the activities of the Community Liaison Group (Condition A7).

A21.4 The social impact monitoring programme shall be reviewed every six months during the construction phase of the project and five years after the commissioning of the cement plant. The results of the programme shall be reported and forwarded to the Consent Authority and to the Community Liaison Group.

A21.5 Copies of the results of the social impact monitoring programme shall be lodged in the Weston School library (subject to their approval) and the Oamaru Public Library so there is public access to them.

A22 Hazardous Substances

A22.1 All storage and use of hazardous substances shall be in accordance with the provisions of the Hazardous Substances and New Organisms Act 1986 (HSNO), including compliance with any required emergency management plan, site test location certificate, and stationary container test certificate.

A22.2 The storage of hazardous substances will include provision of secondary containment (bunding) to capture any hazardous substance leakage or spillage. The outdoor bunds shall be designed to also capture all stormwater runoff.

A22.3 The secondary containment area shall be designed to contain the maximum volume of hazardous substances that can be stored at any one time on the site, plus a further 30% of this design capacity for any outdoor secondary containment.

A22.4 The Consent Holder shall also install an approved oil/water separation system for the waste oil storage tanks with design details forwarded to the Consent Authority.

A22.5 The off loading connections and supply pipe work associated with the transportation of both waste oil and aqueous ammonia shall be designed to eliminate any land or ground contamination arising from these procedures. Design details shall be forwarded to the Consent Authority.



A22.6 The waste oil storage tanks at the cement plant shall be provided with an appropriate system to provide protection to the tank and associated supply equipment in the event of fire. The Consent Holder shall design such a system in consultation with the New Zealand Fire Service and design details shall be forwarded to the Council.

A23 Heritage and Archaeology

A23.1 Prior to earthworks commencing, an archaeologist shall be appointed and be available should any archaeological material or sites be discovered.

A23.2 Prior to any earthworks, a full archaeological survey at all sites and assessment shall be commissioned by the Consent Holder and a report shall be forwarded to the Consent Authority and the New Zealand Historic Places Trust.

A23.3 The archaeologist appointed under Condition A23.1 shall be on site in the following circumstances:

- (a) To monitor any stripping of topsoil at all sites in those areas where the full archaeological survey and assessment completed under Condition A23.2 reveals high potential for archaeological discovery;
- (b) To monitor any stripping of topsoil in the area surrounding the tunnel (to the limestone and siltstone quarry) so that a better understanding of soil deposition, plough zone depth, and possible archaeological site distribution is obtained; and
- (c) Prior to any earthworks at the northern end of the proposed plant site, to monitor trial trenches dug (using a digger with a cleaning bucket) so that a better understanding of soil deposition, plough zone depth, and possible archaeological site distribution is obtained.

A23.4 Notwithstanding the requirements of Conditions A23.2 and A23.3, should any archaeological material or sites be discovered during the course of earthworks and stripping on the site, work in that area of the site shall stop immediately and the Accidental Discovery Protocol (see attached) shall be followed.

A23.5 All contractors involved in earthmoving activities shall be subject to education on the identification of archaeological material prior to the commencement of earthmoving activities.

A23.6 The Consent Holder shall also hold an Archaeological Authority from the New Zealand Historic Places Trust, prior to any work commencing on the site, and all works shall be in accordance with that Authority.

A23.7 A thorough photographic record of any archaeological sites and features that are intended to be modified shall be undertaken and provided to the Consent Authority and the New Zealand Historic Places Trust.

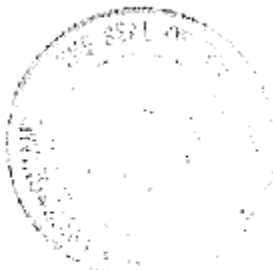
A23.8 During any works associated with the development of the plant site or associated roading works, the Memorial Oaks located adjacent to Weston-Ngapara Road shall be protected at all times.

A23.9 No earthworks, building or any other activities shall disturb or modify the Lorne Siding formation identified on land owned by the Consent Holder as shown on Figure 1 attached to this consent.



A24 Rock Art

- A24.1 The Consent Holder shall not disturb any rock art identified in Appendix 13 of the AEE (Potential Impacts of the Holcim Cement Works Proposal on the Rock Art and Archaeological Values in the Te Ana Raki, Windsor and Ngapara Areas, Amanda Symon, February 2007).
- A24.2 Prior to the exercise of these consents, the Consent Holder shall prepare and submit a Rock Art Management Plan to the Consent Authority.
- A24.3 The objective for the Rock Art Management Plan shall be to maintain and enhance the rock art.
- A24.4 To achieve the objective the Rock Art Management Plan shall include:
- (a) A monitoring programme for the three rock art sites located in Troublesome Gully. This programme shall include measurement of vibration, relative humidity, wind speed, temperature and particulate levels in the vicinity of the sites, both prior to and during construction, and during the ongoing operation of the quarry and plant;
 - (b) Preparation of methods to protect the rock art, reviewing issues such as stock control, vegetation, rain water runoff, and human visitation;
 - (c) Preparation of methods to enhance the sites around any rock art, including appropriate plantings; and
 - (d) Details of covenants that could be prepared in order to protect the art work.
- A24.5 This Rock Art Management Plan shall be developed in consultation with Te Runanga o Moeraki and the Ngai Tahu Maori Rock Art Trust and shall be undertaken and shall be the basis of ongoing communication and liaison between the three groups in relation to the management and conservation of rock art sites on the land owned by the Consent Holder.



ACCIDENTAL DISCOVERY PROTOCOL (refer to Condition A23.4)**Purpose**

The purpose of this protocol is:

- To manage and protect the integrity of "known" and "unknown" archaeological sites from undue damage and loss.
- To maximise the opportunity to retrieve physical and archaeological evidence from disturbed sites. In cases where sites clearly are unable to be retained intact, the orderly and systematic removal of archaeological evidence and information is of the utmost importance.
- Where Kōiwi tangata (human skeletal remains) are unearthed through a range of causes, manmade and natural, provide for the dignified and appropriate cultural management of such sites and remains.
- To obtain quality information on the lives, activities, foods, resource use, trails and camp sites of Ngāi Tahu ancestors from archaeological sites. Early detection and assessment is dependent on early intervention to manage retrieval of such information.
- To retain quality historic information on the lives of people, their activities, resource use and structures.

Process

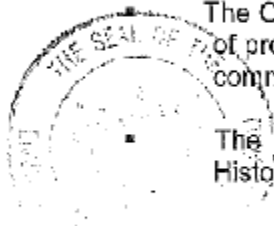
In the event of all discoveries the Consent Holder shall undertake the following steps:

1. Cease all works immediately.
2. Advise the site supervisor of the find.
3. The site supervisor shall contact an appointed archaeologist to advise on the significance of the find.
4. If the find is of potential significance to Ngāi Tahu, appropriate "contact" person(s) from Te Rūnanga o Moeraki must be advised.
5. The Historic Places Trust must be advised in all cases.

In cases of wāhi taonga and wāhi tapu

- The nominated representatives of Te Rūnanga O Moeraki will be consulted by the archaeologist and site supervisor to determine what further actions are appropriate to avoid, reduce, remedy or mitigate any damage. The Consent Holder shall consult with the Te Rūnanga O Moeraki on any matters of protocol that they may wish to undertake in relation to the find and prior to the commencement of any investigation.

- The Historic Places Trust shall advise what authorities are required under the Historic Places Act.



In cases of suspected kōiwi tangata

- The site supervisor shall take steps to immediately secure the area to ensure that the remains are not touched, and then notify the police and the nominated representative(s) of Te Rūnanga O Moeraki.
- The site supervisor must ensure that staff are available to meet and guide Police, Kaumatua and Historic Places staff to the site and to assist with any requests made. The area shall be marked off and if the remains are of Māori origin, Kaumatua will decide what will happen to the remains and advise the Police and other parties of their decision.
- Work may only recommence in the area with the approval of the Police, Kaumatua and the Historic Places Trust.

In all other cases

- The archaeologist and site supervisor to determine what further actions are appropriate to avoid, reduce, remedy or mitigate any damage.
- The Historic Places Trust shall advise what authorities are required under the Historic Places Act.

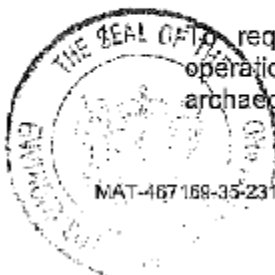
Responsibilities

Te Rūnanga O Moeraki

1. Prior to earth disturbance inform the Consent Holder of the position of any known sites.
2. To inform the Consent Holder in accordance with tikanga Māori, if there are any matters of protocol which tangata whenua wish to undertake in relation to the commencement of work or significant events.
3. To provide a list of contact persons and phone, fax and mobile numbers to the Consent Holder.
4. To adopt a policy of guaranteeing response to notification of a "site find" within a 24 hour timeframe;
 - (a) This will consist of contacting appropriate people and organisations depending on the nature of the "find";
 - (b) Arranging a time for inspecting the site; and
 - (c) Co-ordination of the appropriate action to remove or otherwise any archaeological material from the site.

Consent Holder

require all staff/contractors involved in drilling, earthmoving or mining operations to undertake a training session on the recognition of "in situ" archaeological sites.



2. To implement internal management protocols to ensure staff are aware of the requirement to monitor operations in a way that allows the identification of archaeological sites including wāhi tapu, wahi taonga, urupā or historic cultural sites.
3. To implement a reporting procedure in the event of a "find" of any archaeological material as described in the Process above.
4. To ensure that the Consent Holder will meet all statutory obligations under the Historic Places Act 1993 and comply with all conditions of resource consent as they relate to matters of archaeological significance.
5. To provide a copy of the work plan to Te Rūnanga O Moeraki and the Historic Places Trust.
6. To appoint an archaeologist(s) approved by Te Rūnanga O Moeraki to be available during excavations to act as an advisor on identification or protection of wāhi tapu, wāhi taonga, urupā or historic cultural sites. This person(s) to be on-site as required by conditions of resource consent or as required in the event of a discovery.



A25 Reserves/Financial Contribution

A25.1 A financial contribution of money shall be paid to Waitaki District Council for the provision of reserves and facilities, as provided for in Part 14 of the Waitaki District Plan.

The financial contribution shall be a total of \$1 million, including \$300,000 for the development of a new walkway between Weston and Oamaru (Items B3 and B4 in Schedule 2 attached).

The Consent Holder shall pay the amount of the contribution to the Waitaki District Council prior to the commencement of any works authorised by this consent.

A26 Road Upgrades

A26.1 The roading and pedestrian improvements in Schedule 2 are required by the activities authorised by this consent. The consent holder must not:

- (a) Commence construction of any of the cement plant building until the preconstruction works marked "C" in Schedule 2 are completed.
- (b) Commence commissioning the cement plant until the works marked "M" in Schedule 2 are completed.
- (c) Commence the routine manufacture of cement until the works marked "O" in Schedule 2 are completed.

A26.2 The consent holder shall pay to the Waitaki District Council a contribution of \$325,000 (plus GST if any) towards the roading and pedestrian improvements in Schedule 2. The contribution shall be paid prior to the commencement of any works authorised by this consent.

Note: This payment shall replace any roading payment due under the Council's LTCCP.



WDC LAND USE CONDITIONS



LRC07/08a Land Use Consent	To construct and operate a cement manufacturing plant and associated facilities
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B1 Compliance with General Conditions

B1.1 The general conditions of consent set out in Part A shall apply to this consent.

B2 Construction Noise Limits

B2.1 During periods of construction the noise levels shall not exceed the recommended upper limits for levels of construction work noise as required by NZS 6803:1999 Acoustics – Construction Noise. The term construction noise shall be as defined in NZS 6803:1999 "Acoustics – Construction Noise".

B3 Operational Noise Limits

B3.1.1 Except as provided in B3.1.2, and B3.1.3 noise from all activities shall not exceed the following noise limits at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 2 attached.

Monday to Saturday 7 am – 7 pm	50dB L_{Aeq}
Monday to Friday 7 pm – 10 pm	45dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	65dB L_{AFmax}

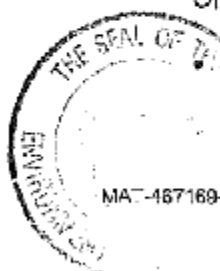
B3.1.2 The cumulative site noise level during train movements on the site, (not when the train is stationary and/or loading/unloading) shall not exceed the following noise limits at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 2 attached.

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 7 am – 7 pm	55dB L_{Aeq}
Saturday 7 pm – 10 pm	45dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	65dB L_{AFmax}

B3.1.3 When maintenance of the cement plant is required, the cumulative site noise shall not exceed the following noise limits at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 2 attached.

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 7 am – 7 pm	55dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	75dB L_{AFmax}

Such relaxation of the noise standard shall not exceed 30 days in any 12 month period.



- When possible the consent holder shall notify Council and the Community Liaison Group of programmed maintenance not less than 7 days in advance of the work taking place.
- In circumstances when 7 days notice of maintenance is not possible, the consent holder shall notify Council and the Community Liaison Group within 24 hours, or the next weekday, after such maintenance is scheduled.
- When no notice of maintenance is possible (e.g. a breakdown repair), the consent holder shall notify Council and the Community Liaison Group within 24 hours, or the next weekday, after maintenance commences.

B3.2 Noise levels shall be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008 Acoustics - Environmental Noise.

B4 Noise Assessment Report

B4.1 Prior to the commencement of construction of any part of the cement plant, a report shall be prepared by a suitably qualified and experienced expert to demonstrate that the cement plant as designed will comply with the noise limits specified in Condition B3 above. The report shall be forwarded to the Consent Authority.

B5 Noise Monitoring

B5.1 Noise monitoring shall be conducted to verify that the activities within the cement plant site comply with the noise limits described in Condition B3 above and include:

- (a) Within one month after the plant has been commissioned, noise verification measurements shall be undertaken by a person experienced in measuring noise at no less than three representative locations within the notional boundaries of any dwellings existing as at 10 August 2007 and marked on Figure 2 attached. The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements.
- (b) Every 12 months after the plant has been commissioned, and at any other time requested by the Waitaki District Council Regulatory Services Unit Manager, noise measurements shall be conducted by a person experienced in measuring noise at the same positions as set out in (a). The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements.
- (c) In the event of any non-compliance the Consent Holder shall advise the Waitaki District Council Regulatory Services Unit Manager and the Community Liaison Group within 24 hours, or the next weekday, of the steps they will implement to achieve compliance and the time they expect to take to resolve the matter. Additional measurements shall be undertaken once the activity has been modified and the noise measured and reported as set out above.



- (d) In the event of awareness of any non-compliance with Condition B3 above, the site manager shall take action to achieve compliance with Condition B3 and if the breach cannot be remedied within 24 hours, or the next weekday, notify the Waitaki District Council Regulatory Services Unit Manager and the Community Liaison Group of the incident and steps proposed to be taken to achieve compliance.

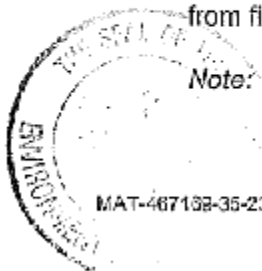
B6 Visual Mitigation

- B6.1 The plantings and bunding on and around the cement plant site shall be generally in accordance with the Landscape Masterplan shown in Figure 6 attached, and the planting on areas identified as bunds shall be established within the first planting season following completion of the bunds. All other planting shall be established within the first planting season following completion of construction.
- B6.2 All landscaping required for this consent shall be maintained. Any dead, diseased, or damaged landscaping is to be replaced as soon as practicable with plants of a similar species.
- B6.3 All buildings, excluding those constructed of concrete or those constructed of non-paintable materials, for example Oamaru stone, shall be painted in appropriate earth tones to the satisfaction of a landscape architect appointed by the Consent Authority and shall not exceed a reflectivity of 37%.
- B6.4 The structures and buildings listed below shall not exceed the following heights:

Preheater (including top ducts)	97 metres
Main Stack	104 metres
Limestone Storage	22 metres
Gypsum Storage	12 metres
Raw Mill	39 metres
Cement Mill (including conveyor transfer tower)	34 metres
Coal Mill	40 metres
Coal Storage	22 metres
Cement Silos	50 metres
Clinker Silos	50 metres
Homogenizing Silos	50 metres
Raw mill feed bins	31 metres
Kiln	18 metres
PGNA Analyser Building	15 metres
Off-specification clinker silo	35 metres
Clinker cooler building (including tertiary air dedusting cyclone, and clinker cooler waste gas cooling and dedusting)	30 metres
Tertiary Air Duct	33 metres
Numerous conveyors between buildings and running throughout the site	60 metres
Meteorological Monitoring Mast	35 metres
All other structures and buildings shall not exceed 10 metres.	

For the purposes of this condition, the height of the building shall be measured from finished ground levels (after any excavation works).

Note: In addition to the buildings and structures listed, there are various ancillary items (such as ducts, air filters, dust slides, etc), and various



small enclosures, which may be attached to the main structures with the exception of the preheater tower. These items may be placed on or above the main structures.

B7 Lighting

- B7.1** All fixed lighting shall be shielded and aimed in such a manner that the light source is not directly visible from outside of the site.
- B7.2** All temporary lighting associated with maintenance activities, shall as far as practical be shielded and aimed in such a manner that the light source is not directly visible from outside of the site.
- B7.3** Spill lighting shall not exceed 10 lux spill (horizontal or vertical) within 20 metres of any occupied rural dwelling (other than those owned by the Consent Holder), measured at a height of two metres above ground level.
- B7.4** Where maintenance for the cement plant is required, the light spill limits set out in Condition B7.2 may be relaxed up to a magnitude factor of three providing such relaxation factor does not exceed 30 days per year.
- B7.5** The Consent Holder shall, at least two weeks in advance, inform in writing any owner of a neighbouring rural dwelling that is potentially affected by Condition B7.4, that a planned maintenance period is forthcoming.

B8 Transport

B8.1 The Consent Holder:

- (a) Shall as far as practical transport construction materials, plant and equipment to the cement plant site by rail.
- (b) Shall transport by rail to a port all bulk cement which is to be shipped except when a rail outage, for the reason set out in Condition B8.5(b) below, is anticipated to exceed 3 days.
- (c) Shall transport coal to the cement plant utilising routes that avoid truck movements through Weston.

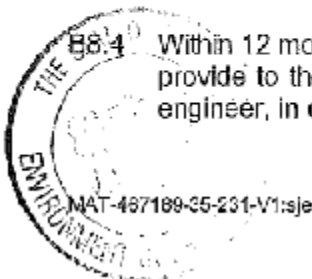
Note: If trucking of coal to the cement plant through the village of Weston is proposed then a new additional land use consent will be required.

Note: There has been no assessment of traffic impact effects arising from the movement of heavy trucks carrying coal through Weston.

B8.2 Except as provided during a rail outage described under condition B8.5 below, the maximum quantity of cement that may be dispatched by truck is 110,000 tonnes each calendar year.

B8.3 The Consent Holder shall keep a record of volumes of cement trucked each calendar year and shall forward this information to the Council annually if requested.

B8.4 Within 12 months of commissioning of the cement plant, the Consent Holder shall provide to the Consent Authority a report prepared by a suitably qualified traffic engineer, in consultation with Transit New Zealand, providing an evaluation of the



safety and efficiency of the State Highway 1 / Whiterocks Road and State Highway 83 / Gibsons Road intersections.

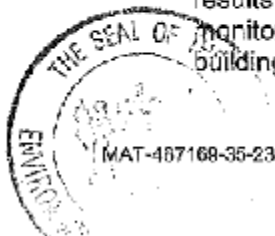
- B8.5 a) Train arrivals or departures from the cement manufacturing plant shall not occur outside the following hours:
- 7am – 10pm Monday to Saturday inclusive (prohibited at all other times and on public holidays)
- except when there has been a disruption to the regular scheduling of the trains due to a rail outage caused by:
- (a) An accident, derailment or closure of the line;
 - (b) A natural event causing loss of rail line capacity, such as a flood, heat stress on rails, earthquake, severe rain or snow storm, or severe icing;
 - (c) Prolonged industrial action; or
 - (d) Closure of the Port of Timaru.
- b) Train arrivals or departures from the cement manufacturing plant shall not be scheduled to occur outside the hours of 7am – 9 pm Monday to Saturday inclusive, provided that the actual departure time may be up to 10 pm as a result of unavoidable delays.
- c) If a rail outage (for the reasons set out in clause (a) above) is anticipated to exceed a period of three days, all cement transport may be undertaken by trucks, in accordance with the contingency planning arrangements set out in the Transport Management Plan (Condition A16).
- d) The Consent Holder shall prepare a report on why a rail outage occurred and the actions taken to minimise the length of the outage. The report shall be forwarded to the Consent Authority, and shall be presented to the Community Liaison Group at its next meeting required under Condition A7 of Consent LCR07/08.

B8.6 Once the Consent Holder has commenced production of cement on the site, the Consent Holder shall ensure that there are no more than 2 heavy vehicle departures from the cement plant site in any 1-hour period between 10 pm and 7 am.

B9 Vibration

B9.1 Prior to any earthworks being commenced for the establishment of the conveyor tunnel, the consent holder shall commission a suitably qualified and experienced engineer to provide a structural inspection report for the limestone building on the site identified on to the north of the plant site and, using a conservative approach, estimate the levels of vibration that could potentially damage the aforementioned building. The report shall be forwarded to the Consent Authority.

B9.2 The levels of vibration during the construction of the portal entrance and during the first 50m of tunnelling shall be monitored by a suitably qualified and experienced engineer. Details of the proposed monitoring programme and the results of the monitoring shall be forwarded to the Consent Authority. The monitoring point shall be at the closest notional boundary of the limestone building to the portal entrance.



- B9.3** The levels of vibration shall be monitored during construction of the conveyor and shall be monitored within one month of the operation of the conveyor by a suitably qualified and experienced engineer. Details of the proposed monitoring programme and the results of the monitoring shall be forwarded to the Consent Authority. The monitoring point shall be at the closest notional boundary of the limestone building to the conveyor.
- B9.4** The construction of the portal entrance and associated tunnelling and the construction and operation of the conveyor shall avoid damaging the limestone building.
- B9.5** Within one year after the operation of the conveyor, a report by a suitably qualified and experienced engineer shall assess the structural integrity of the building and whether it has deteriorated since that report prepared under Condition B9.1 and this report shall be forwarded to the Consent Authority.

B10 Rail Connection

- B10.1** No activities authorised by this consent shall be commenced until a designation or other legal authority for rail connection between the plant site and the Main Trunk railway line is confirmed/granted.

B11 Review

- B11.1** Pursuant to Section 128(1) of the Act, the Consent Authority may, within three months of receiving the report required by Condition B6.4, review the conditions of this consent to require roading works to be undertaken in relation to those intersections which are necessary to address any adverse effects arising from the implementation of this consent.



LRC07/08b Land Use Consent	<p>To undertake limestone/siltstone extraction, the extraction of tuff and ancillary activities, including the construction and use of access roads, and vegetation clearance.</p> <p>This consent shall expire 35 years after the date of commencement.</p>
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C1 Compliance with General Conditions

C1.1 The general conditions of consent set out in Part A shall apply to this consent.

C2 Construction Noise Limits

C2.1 During periods of construction the noise levels shall not exceed the recommended upper limits for levels of construction work noise as required by NZS 6803:1999 Acoustics – Construction Noise. The term construction noise shall include all works associated with the construction of any site access, offices, workshops, staff facilities and noise bunds but excludes noise from overburden removal and mining operations, elevated landform and stockpile construction and dumping and all rehabilitation which are subject to Condition C3.

C3 Operational Noise Limits

C3.1 Noise from activities shall not exceed the following limits at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 2 attached.

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 7 am – 7 pm	55dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	75dB L_{AFmax}

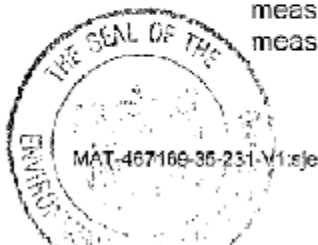
Note: These noise limits apply at all dwellings marked in Figure 2 irrespective of current ownership.

C3.2 Noise levels shall be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 – Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008 Acoustics - Environmental Noise.

C4 Noise Monitoring

C4.1 Noise monitoring shall be conducted to verify that the activities within the quarry site comply with the noise limits described in Condition C3.1 above and include:

- (a) Within one month of the mining operation commencing, noise verification measurements shall be undertaken by a person experienced in measuring noise at no less than three representative locations within the



notional boundaries of any dwellings existing as at 10 August 2007 and marked on Figure 2 attached. The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements.

- (b) Every 12 months after the mining operation has commenced, and at any other time requested by the Waitaki District Council Regulatory Services Unit Manager, noise measurements shall be conducted by a person experienced in measuring noise at the same positions as set out in (a). The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements. In the event of any non-compliance the Consent Holder shall advise the Waitaki District Council Regulatory Services Unit Manager within 24 hours, or the next weekday, of the steps they will implement to achieve compliance and the time they expect to take to resolve the matter.
- (c) In the event of awareness of any non-compliance with Condition C3.1 above, the site manager shall take action to achieve compliance with Condition C3 and if the breach cannot be remedied within 24 hours, or the next weekday, notify the Waitaki District Council Regulatory Services Unit Manager and the Community Liaison Group of the incident and steps proposed to be taken to achieve compliance.

C5 Quarry Design

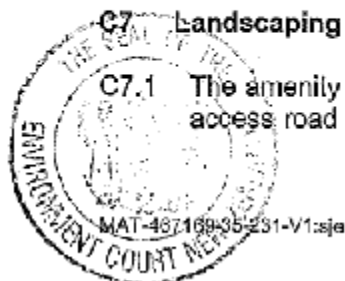
- C5.1 The Consent Holder shall ensure that limestone/siltstone quarry does not encroach onto the Whitstone Escarpment beyond the footprint shown on the aerial photograph in Figure 5 attached, so that the Lorne Siding Formation is avoided (the general location of the Lorne Siding is shown in Figure 1).
- C5.2 The walls of the limestone quarry shall be designed by an appropriately qualified engineer to withstand a 1 in 150 year seismic event with a dynamic factor of safety at not less than 1.1.
- C5.3 During operations to open the limestone and tuff quarries, bunding shall be constructed to the north of the proposed access road to the workshop within three months of quarry opening activities commencing.

C6 Lighting

- C6.1 All fixed lighting shall be shielded and aimed in such a manner that the light source is not directly visible from outside of the site.
- C6.2 Spill lighting shall not exceed 10 lux spill (horizontal or vertical) within 20 metres of any occupied rural dwelling (other than those owned by the Consent Holder), measured at a height of two metres above ground level.

C7 Landscaping and Planting

- C7.1 The amenity and screen planting associated with the bunding to the north of the access road and to the west of the tuff pit (parallel with Coal Pit Road) shall be



established in the location shown on the Landscape Masterplan shown in Figure 7, attached and shall be established with the relevant species listed in Schedule 1 attached: *Provisional Plant Species List*, and shall be established within the first planting season following completion of the bunds.

- C7.2 Wetland planting shall be established at that location shown on the Landscape Masterplan in Figure 8 attached, and shall be established with the relevant species listed in Schedule 1: *Provisional Plant Species List*, and shall be established prior to any relevant Water Discharge Permits held by the Consent Holder first being exercised.
- C7.3 All landscaping required for this consent shall be maintained. Any dead, diseased, or damaged landscaping is to be replaced as soon as practicable with plants of a similar species.

C8 Hours of Operation

C8.1 Quarry extraction activity must at all times comply with the noise standards set out in Condition C3.1.

- C8.2 Trucking of material between the limestone/siltstone quarry and the cement plant site shall not occur outside the following hours:

- * 7am – 7pm Monday to Saturday inclusive (prohibited at all other times including public holidays)

provided that trucking of material between the limestone/siltstone quarry and the cement plant site may take place between the hours of 7 pm and 10 pm Monday to Friday inclusive, but only:

- in extenuating circumstances when the additional hours of operation are required to ensure the operation of the cement manufacturing plant, and
- for a maximum of 30 days in any 12 month period.

In any month during which trucking of material extended beyond 7 pm, the Consent Holder shall prepare a report on the matter explaining the circumstances that necessitated such operations and the cumulative frequency of such occurrences. The Consent Holder shall provide the report for the Consent Authority and the Community Liaison Group at its next meeting required under Condition A7 of Consent LCR07/08.



LRC07/08c Land Use Consent	<p>To extract sand and undertake all associated operations, including earthworks and vegetation removal.</p> <p>This consent shall expire 35 years after the date of commencement.</p>
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D1 Compliance with General Conditions

D1.1 The general conditions of consent set out in Part A shall apply to this consent.

D2 Construction Noise Limits

D2.1 During periods of construction the noise levels shall not exceed the recommended upper limits for levels of construction work noise as required by NZS 6803:1999 Acoustics – Construction Noise. The term construction noise shall include all works associated with the construction of any site access, buildings, and noise bunds but excludes noise from overburden removal and mining operations, elevated landform and stockpile construction and dumping and all rehabilitation which are subject to Condition D3.

D3 Operational Noise Limits

D3.1 Noise from all activities shall not exceed the following noise limits, at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 3 attached.

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 7 am – 7 pm	55dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	75dB L_{AFTMAX}

D3.2 Noise levels shall be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008 Acoustics - Environmental Noise.

D4 Noise Monitoring

D4.1 Noise monitoring shall be conducted to verify that the activities within the quarry site comply with the noise limits described in Condition D3.1 above and include:

- (a) Within one month of the mining operation commencing, noise verification measurements shall be undertaken by a person experienced in measuring noise at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 3 attached. The results are to be provided to the Waitaki District Council Regulatory



Services Unit Manager within one week of undertaking the measurements.

- (b) Every 12 months after the mining operation has commenced, and at any other time requested by the Waitaki District Council Regulatory Services Unit Manager, noise measurements shall be conducted by a person experienced in measuring noise at the same positions as set out in (a). The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements. In the event of any non-compliance the Consent Holder shall advise the Waitaki District Council Regulatory Services Unit Manager within 24 hours, or the next weekday, of the steps they will implement to achieve compliance and the time they expect to take to resolve the matter.
- (c) In the event of awareness of any non-compliance with Condition D3.1 above, the site manager shall take action to achieve compliance with Condition D3 and if the breach cannot be remedied within 24 hours, or the next weekday, notify the Waitaki District Council Regulatory Services Manager and the Community Liaison Group of the incident and steps proposed to be taken to achieve compliance.

D5 Lighting

- D5.1 All fixed lighting shall be shielded and aimed in such a manner that the light source is not directly visible from outside of the site.
- D5.2 Spill lighting shall not exceed 10 lux spill (horizontal or vertical) within 20 metres of any occupied rural dwelling (other than those owned by the Consent Holder), measured at a height of two metres above ground level.

D6 Hours of Operation

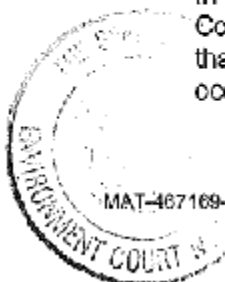
- D6.1 Quarry extraction activity must at all times comply with the noise standards set out in Condition D3.1
- D6.2 Trucking of material between the Windsor sand pit and the cement plant site shall not occur outside the following hours:

- 7am – 7pm Monday to Saturday inclusive (prohibited at all other times including public holidays)

provided that trucking of material between the Windsor sand pit and the cement plant site may take place between the hours of 7 pm and 10 pm Monday to Friday inclusive, but only:

- in extenuating circumstances when the additional hours of operation are required to ensure the operation of the cement manufacturing plant, and
- for a maximum of 30 days in any 12 month period.

In any month during which trucking of material extended beyond 7 pm, the Consent Holder shall prepare a report on the matter explaining the circumstances that necessitated such operations and the cumulative frequency of such occurrences. The Consent Holder shall provide the report for the Consent



Authority and the Community Liaison Group at its next meeting required under Condition A7 of Consent LCR07/08.



LRC07/08d Land Use Consent	<p>To extract coal and undertake all associated operations, including earthworks and vegetation removal.</p> <p>This consent shall expire 35 years after the date of commencement.</p>
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E1 Compliance with General Conditions

E1.1 The general conditions of consent set out in Part A shall apply to this consent.

E2 Construction Noise Limits

E2.1 During periods of construction the noise levels shall not exceed the recommended upper limits for levels of construction work noise as required by NZS 6803:1999 Acoustics – Construction Noise. The term construction noise shall include all works associated with the construction of any site access, buildings, and noise bunds but excludes noise from overburden removal and mining operations, elevated landform and stockpile construction and dumping and all rehabilitation which are subject to Condition E3.

E3 Operational Noise Limits

E3.1 Noise from activities shall not exceed the limits set out below:

- (a) At any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 4 attached.

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 7 am – 7 pm	55dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	75dB L_{AFmax}

- (b) At any point within any Township Zone the following noise limits shall not be exceeded:

Monday to Friday 7 am – 10 pm	55dB L_{Aeq}
Saturday 8 am – 7 pm	55dB L_{Aeq}
At all other times including public holidays	40dB L_{Aeq}
On any day, between 10 pm and the following 7 am	75dB L_{AFmax}

- (c) At any point within the boundary of the Business 3 Zone the following noise limits shall not be exceeded:

At all times	60dB L_{Aeq}
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E3.2 Noise levels shall be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 Acoustics - Measurement of Environmental Sound and assessed in accordance with the requirements of NZS 6802:2008 Acoustics - Environmental Noise.

E4 Noise Monitoring

E4.1 Noise monitoring shall be conducted to verify that the activities within the quarry site comply with the noise limits described in Condition E3.1 above and include:

- (a) Within one month of the mining operation commencing, noise verification measurements shall be undertaken by a person experienced in measuring noise at any point within the notional boundary of any dwelling existing as at 10 August 2007 and marked on Figure 4 attached. The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements.
- (b) Every 12 months after the mining operation has commenced, and at any other time requested by the Waitaki District Council Regulatory Services Unit Manager, noise measurements shall be conducted by a person experienced in measuring noise at the same positions as set out in (a). The results are to be provided to the Waitaki District Council Regulatory Services Unit Manager within one week of undertaking the measurements. In the event of any non-compliance the Consent Holder shall advise the Waitaki District Council Regulatory Services Unit Manager within 24 hours, or the next weekday, of the steps they will implement to achieve compliance and the time they expect to take to resolve the matter.
- (c) In the event of awareness of any non-compliance with Condition E3.1 above, the site manager shall take action to achieve compliance with Condition E3 and if the breach cannot be remedied within 24 hours, or the next weekday, notify the Waitaki District Council Regulatory Services Manager and the Community Liaison Group of the incident and steps proposed to be taken to achieve compliance.

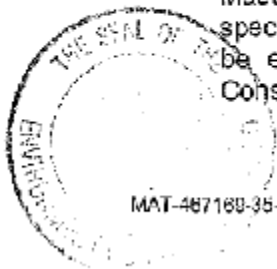
E5 Lighting

E5.1 All fixed lighting shall be shielded and aimed in such a manner that the light source is not directly visible from outside of the site.

E5.2 Spill lighting shall not exceed 10 lux spill (horizontal or vertical) within 20 metres of any occupied rural dwelling (other than those owned by the Consent Holder), measured at a height of two metres above ground level.

E6 Wetland Planting

E6.1 Wetland planting shall be established at that location shown on the Landscape Masterplan shown in Figure 9 attached and shall be established with the relevant species listed in Schedule 1: *Provisional Plant Species List* attached, and shall be established prior to any relevant Water Discharge Permits held by the Consent Holder first being exercised.



E6.2 All planting required for this consent shall be maintained. Any dead, diseased, or damaged planting is to be replaced as soon as practicable with plants of a similar species.

E7 Hours of Operation

E7.1 Quarry extraction activity must at all times comply with the noise standards set out in Condition E3.1

E7.2 Trucking of material between the Ngapara coal pit and the cement plant shall not occur outside the following hours:

- 7am - 7pm Monday to Saturday inclusive (prohibited at all other times including public holidays)

provided that trucking of material between the Ngapara coal pit and the cement plant site may take place between the hours of 7 pm and 10 pm Monday to Friday inclusive, but only:

- in extenuating circumstances when the additional hours of operation are required to ensure the operation of the cement manufacturing plant, and
- for a maximum of 30 days in any 12 month period.

In any month during which trucking of material extended beyond 7 pm, the Consent Holder shall prepare a report on the matter explaining the circumstances that necessitated such operations and the cumulative frequency of such occurrences. The Consent Holder shall provide the report for the Consent Authority and the Community Liaison Group at its next meeting required under Condition A7 of Consent LCR07/08.



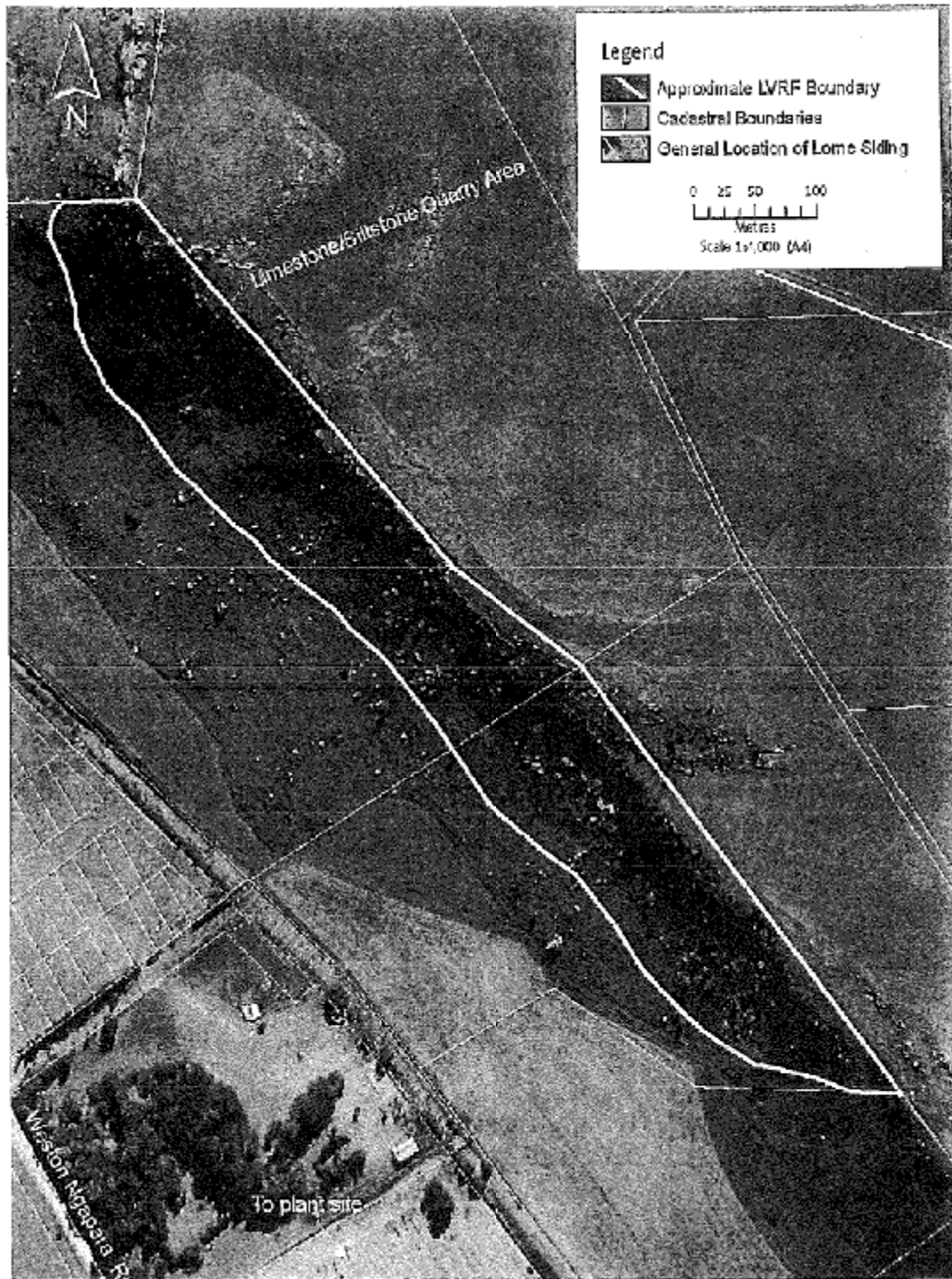


Figure 1: Limestone Vegetation Restoration Area.



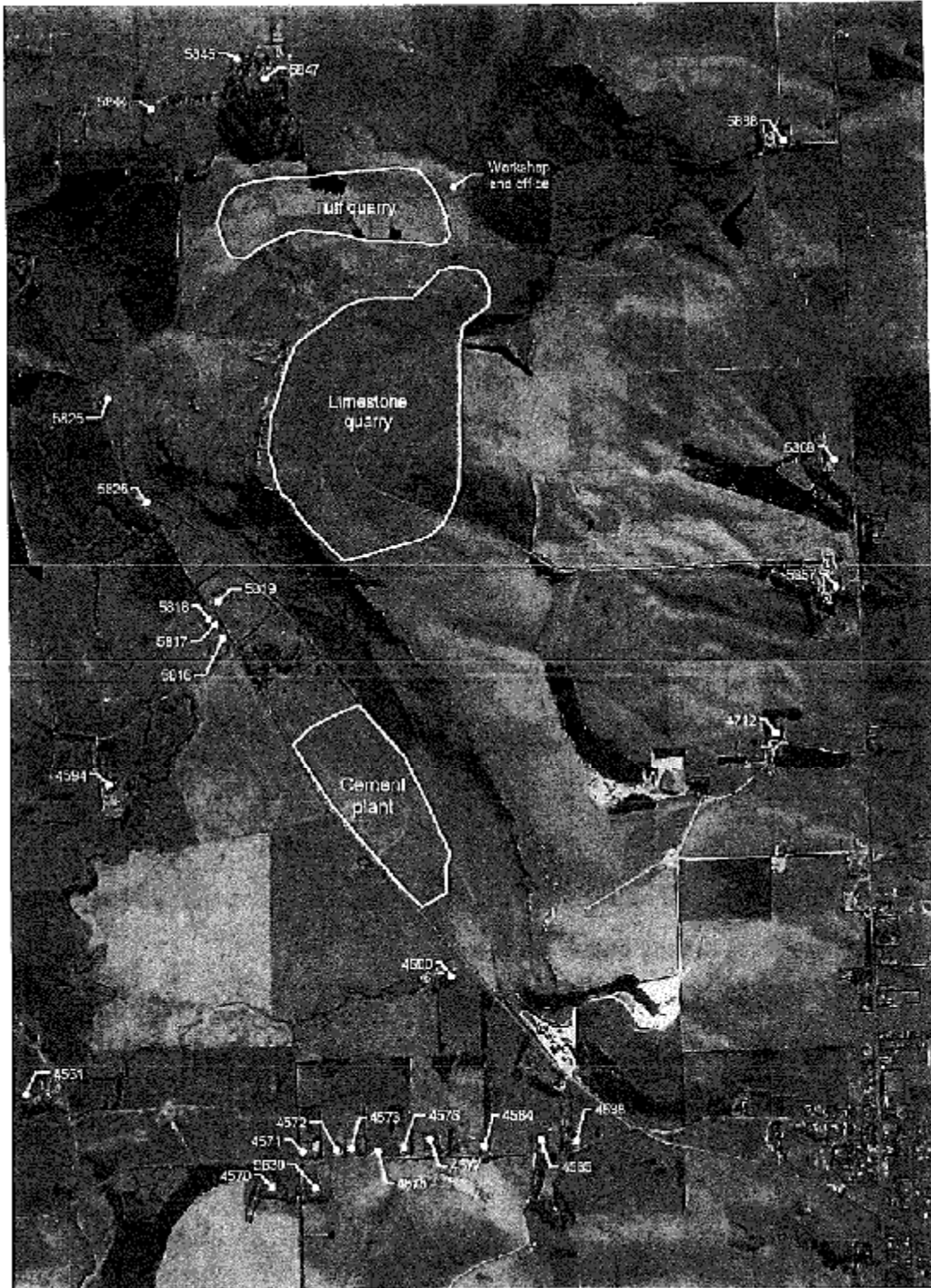


Figure 2: Residential units near the cement plant site and the Weston quarries.



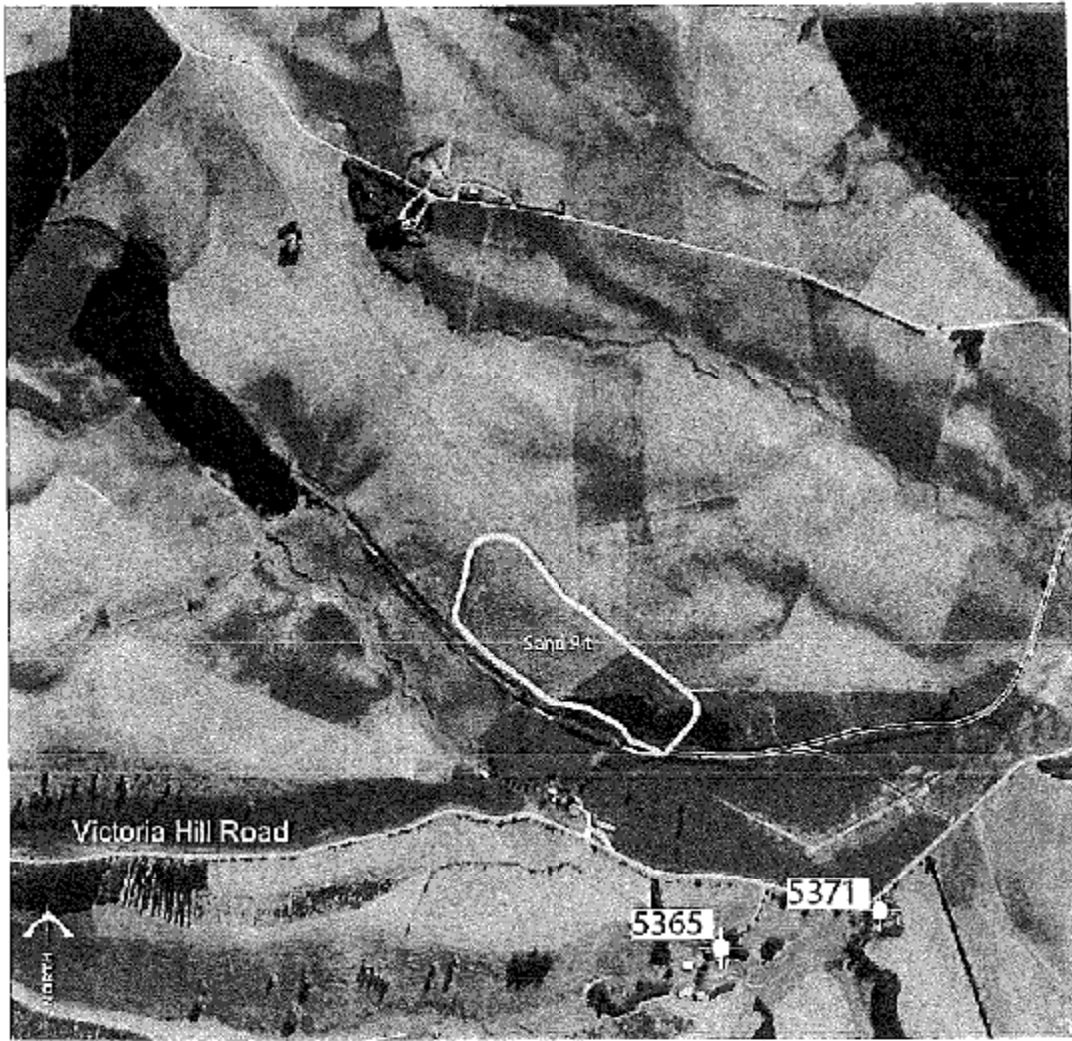


Figure 3: Noise Monitoring Points - Windsor.



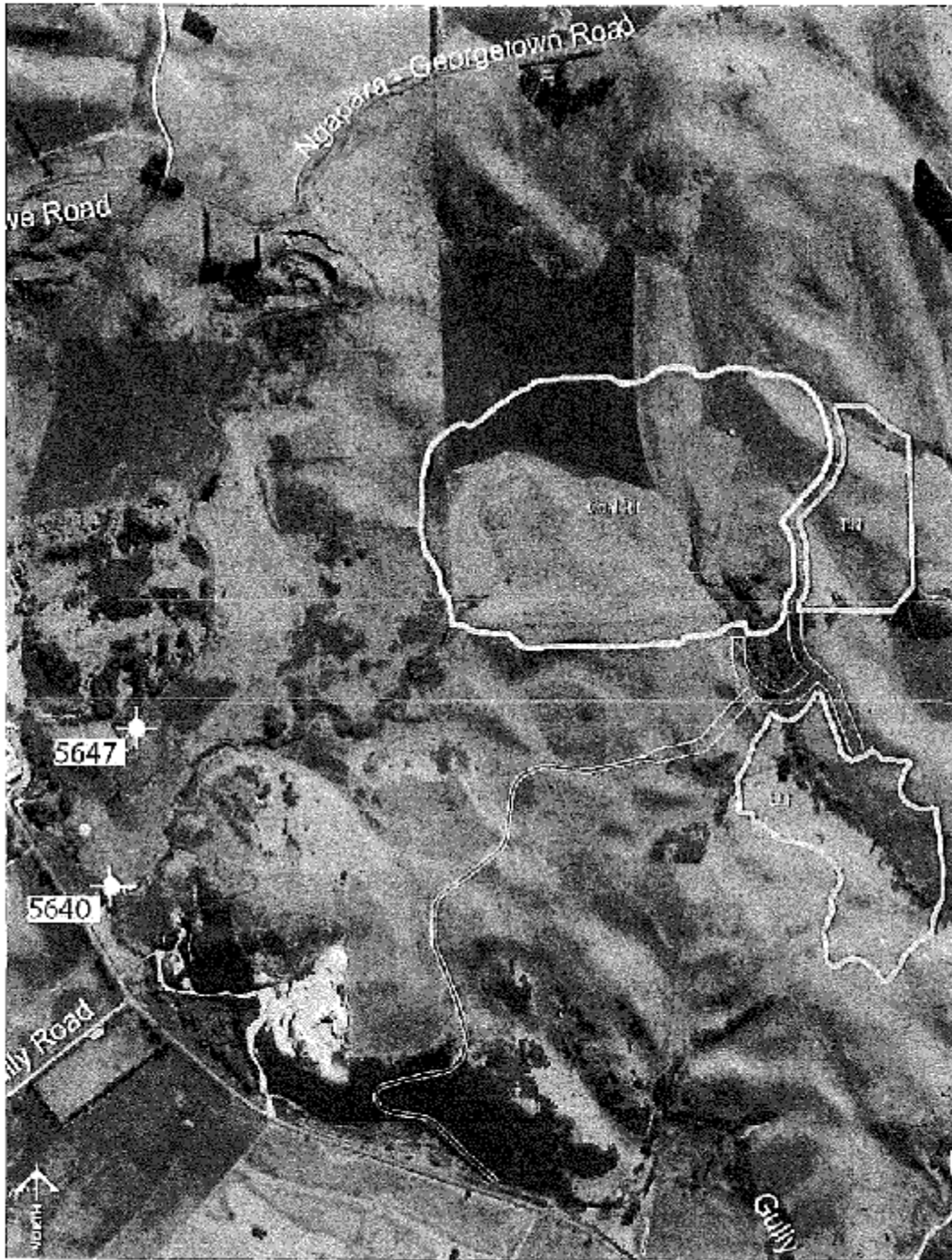


Figure 4: Noise Monitoring Points - Ngapara.



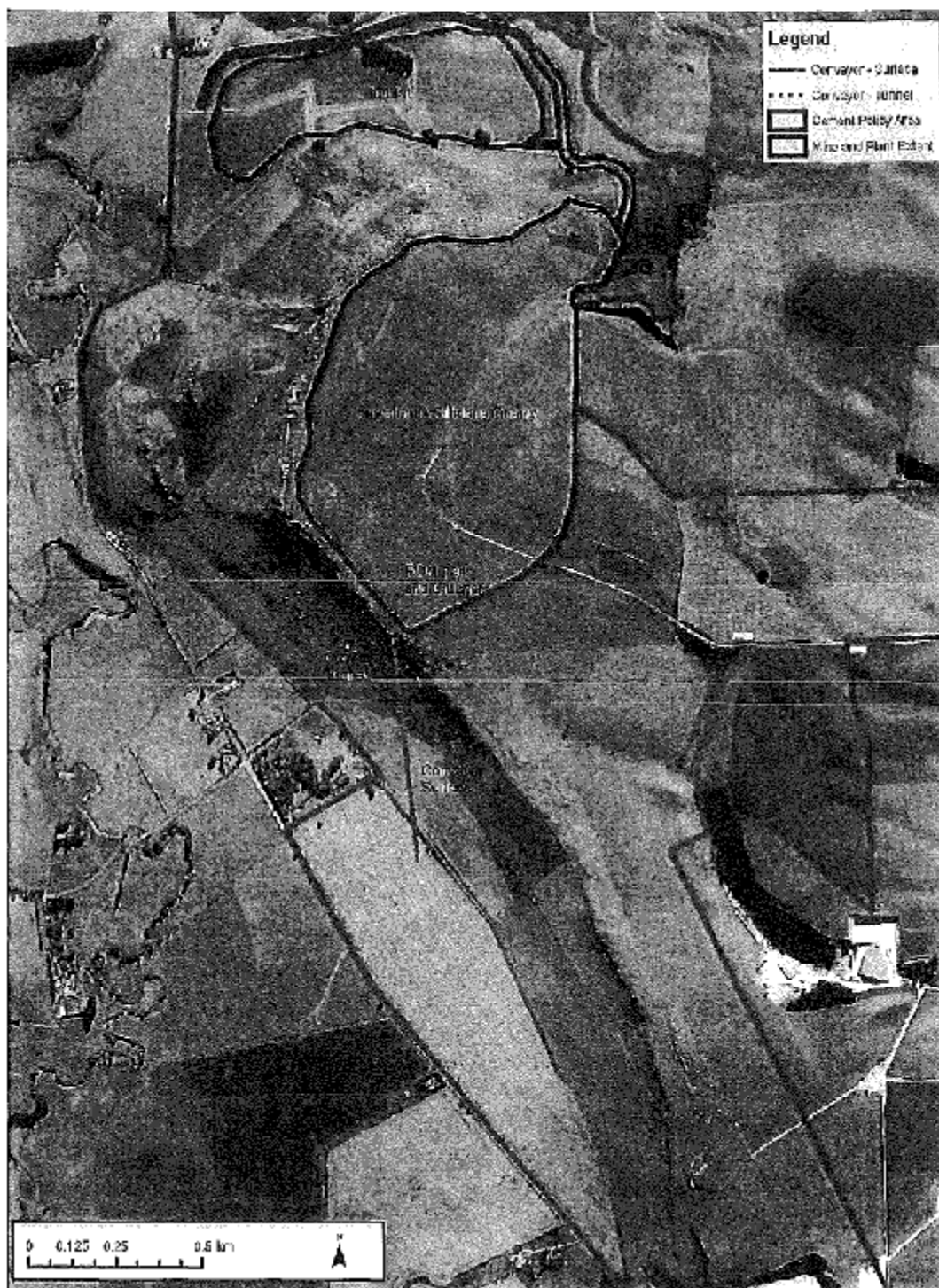


Figure 5: Whitstone Escarpment Quarry Footprint.



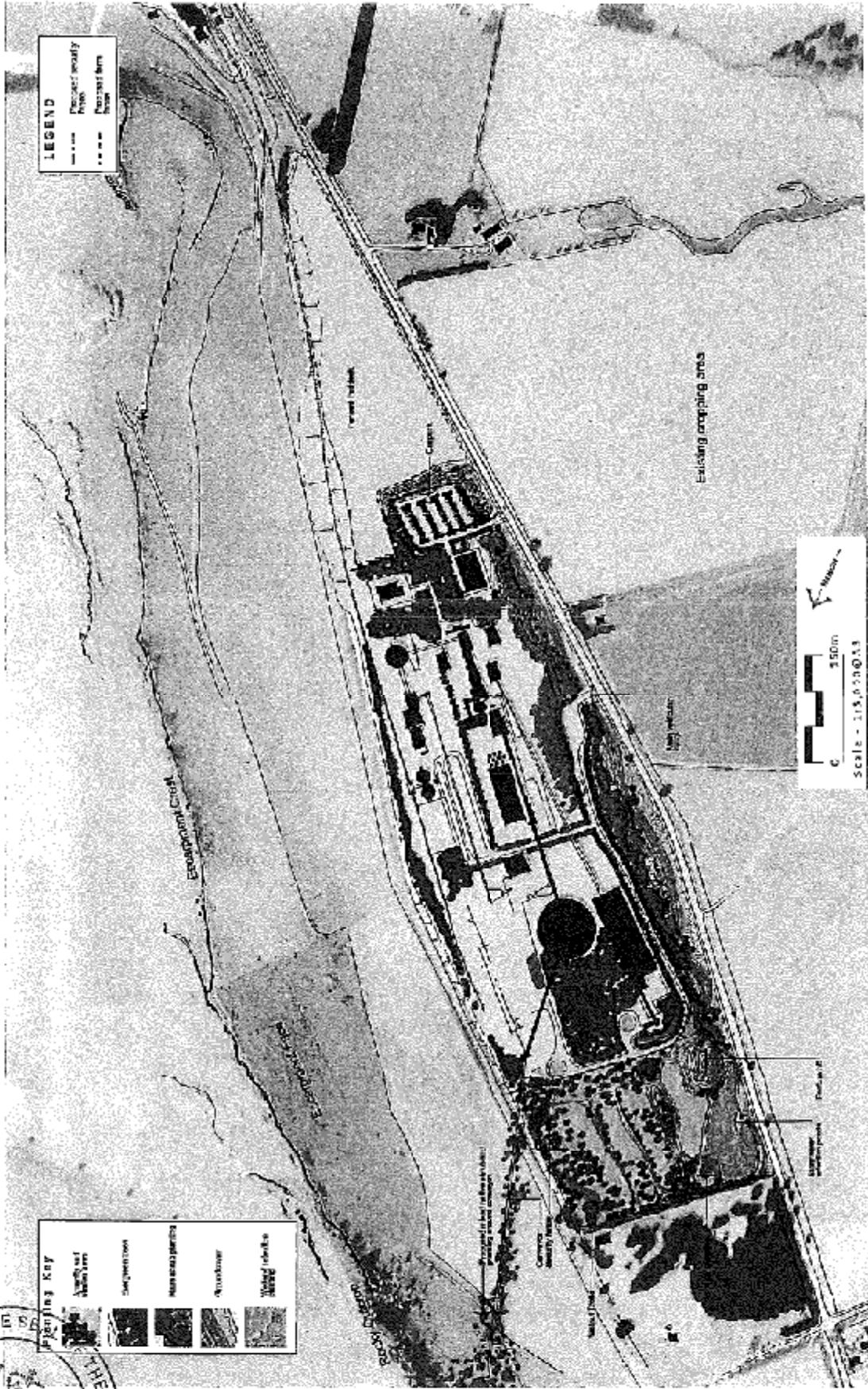


Figure 6: Landscape Masterplan – Cement Plant.

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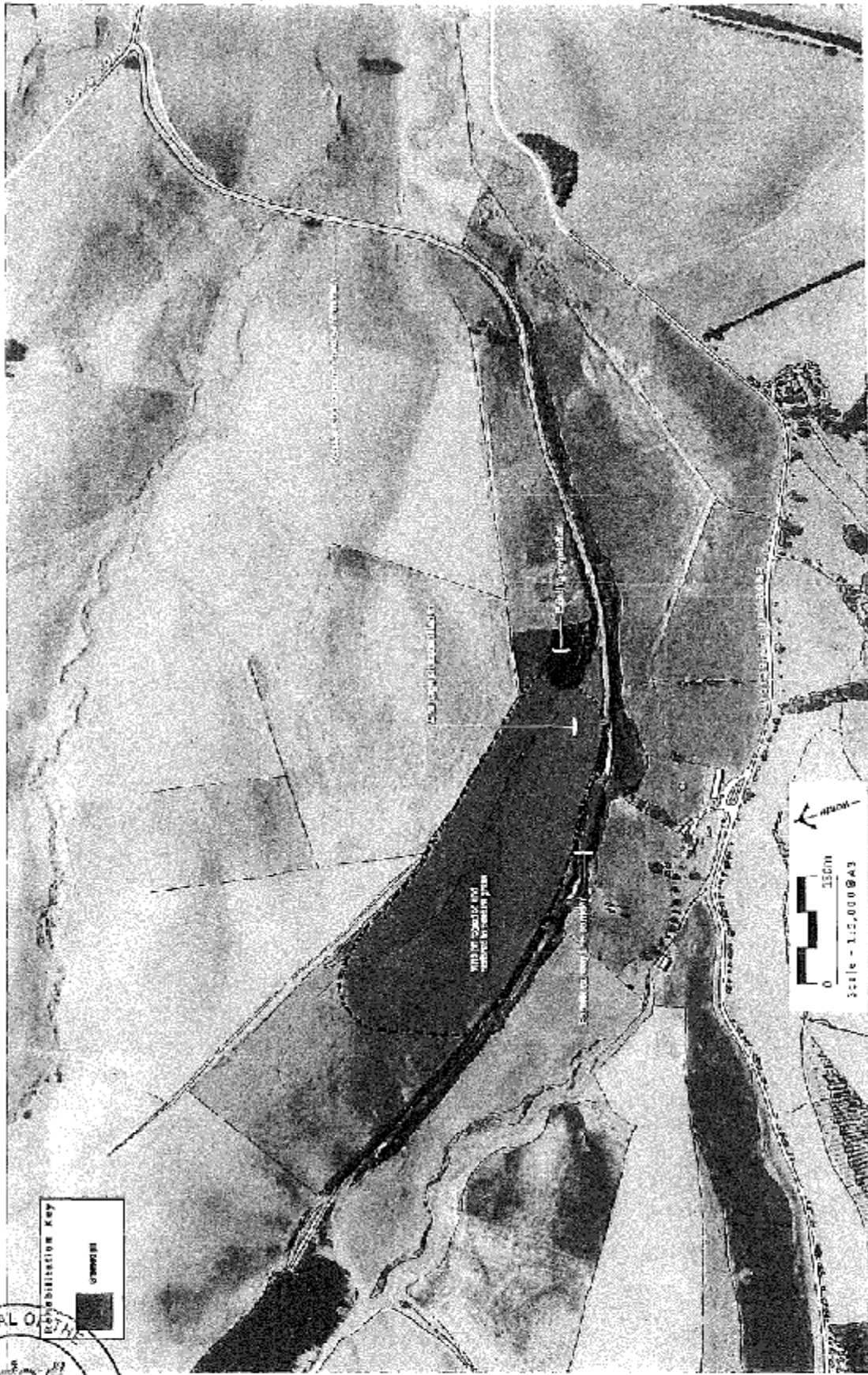


Figure 8: Landscape Masterplan – Windsor Sand Pit.

MAT-467168-35-231-V1-sjg

4B

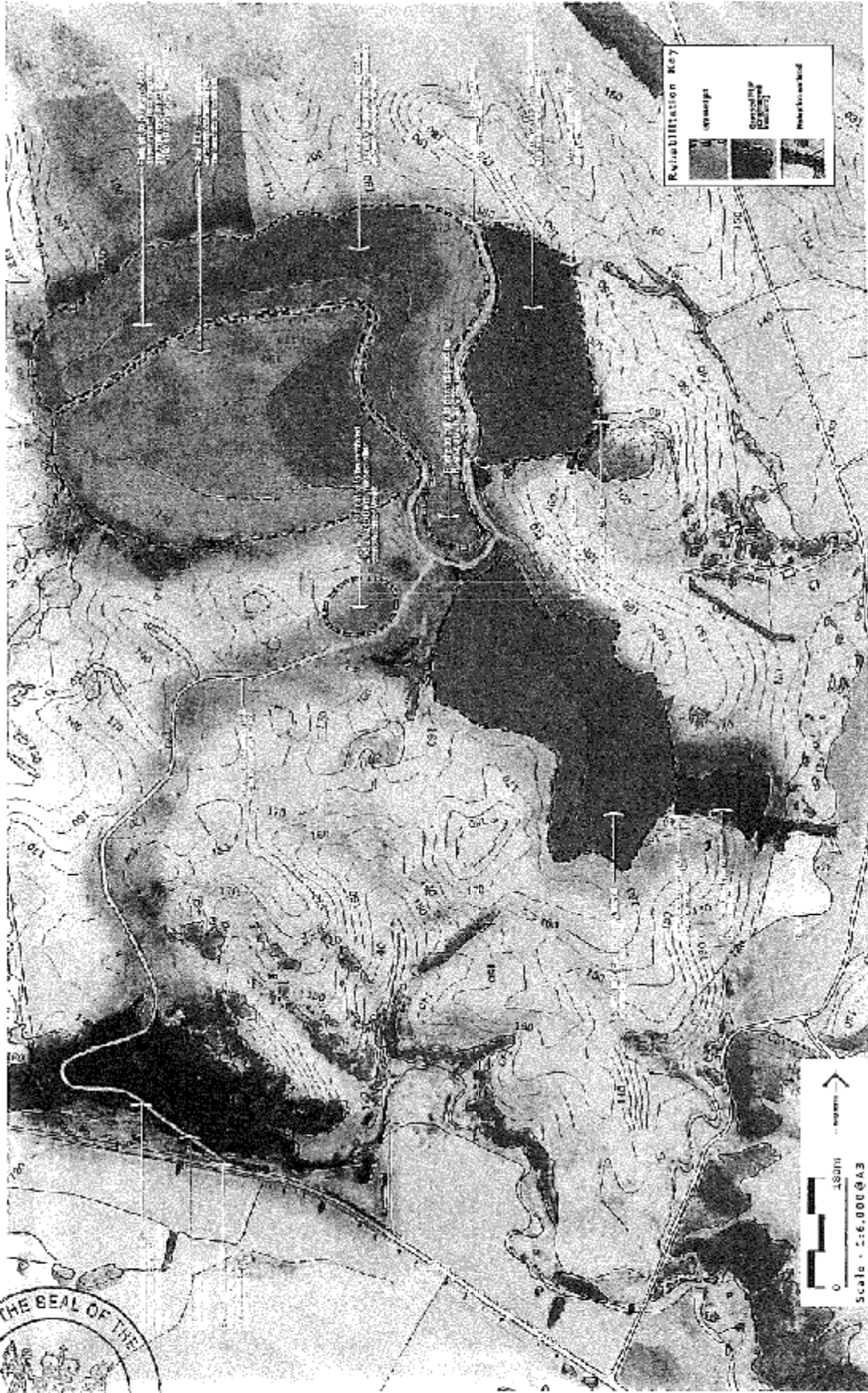


Figure 9: Landscape Masterplan – Ngapara Coal Pit.

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Schedule 1: Provisional Plant Species List

The species below are recommended as being appropriate to the local conditions of the area and individual sites. The categories of planting listed in the tables below include each of the planting types identified within the concept masterplans developed for the individual sites. At this stage they provide a provisional planting list to the concept proposals.

Amenity and Shelter Trees

Amenity and Shelter Trees are to be planted at the Weston plant site and in conjunction with screen planting around the boundaries of the tuff quarry. With reference to existing trees that are characteristic of the locality, the proposed list includes both deciduous and evergreen trees. Deciduous trees will grow to 20-30m, but will be slow to establish. By comparison, the fast growing exotic evergreen trees are intended to provide an early screening of the plant and tuff quarry sites.

Deciduous

<i>Quercus robur</i>	Common Oak/ English Oak
<i>Quercus palustris</i>	Pin Oak
<i>Juglans nigra</i>	Black Walnut
<i>Juglans regia</i>	Common Walnut

Evergreen

<i>Pinus muricata</i>	Bishops Pine
<i>Pinus ponderosa</i>	Ponderosa Pine
<i>Cupressus macrocarpa</i>	Monterey cypress
<i>Quercus ilex</i>	Holm oak
<i>Podocarpus totara</i>	Totara
<i>Prumnopitys taxifolia</i>	Matai

Mass Shrub Planting

Mixed shrubs are to be planted about the Weston plant site in conjunction with screening earth bunds, water retention areas and the conveyor line. Native shrubs are also to be planted along the back wall of the limestone quarry as an early rehabilitation measure. The species listed below are predominantly natives, ranging between 2-8m height at maturity.

<i>Pittosporum tenuifolium</i>	Kokhuhu
<i>Pittosporum eugenioides</i>	Commonwood/ tarata
<i>Hebe salicifolia</i>	Koromiko
<i>Myoporum laetum</i>	Ngaio
<i>Sophora microphyllum</i>	Kowhai



<i>Phormium tenax</i>	Flax
<i>Olaeria periculata</i>	Akiraho
<i>Cordyline australis</i>	Cabbage tree
<i>Griselinia littoralis</i>	Broadleaf
<i>Coprosma robusta</i>	Karamu
<i>Corokia cotoneaster</i>	Wire netting bush
<i>Meliclytus alpinus</i>	Porcupine shrub
<i>Coprosma propinqua</i>	Mikimiki

Groundcover

Groundcover plants will be planted into earth bunds as part of amenity planting for the Weston plant.

<i>Muehlenbeckia axillaris</i>	Shrub pohutukava
<i>Poa cita</i>	Silver tussock
<i>Carex testacea</i>	Carex
<i>Cortaderia richardii</i>	Toe toe

Riparian and Wetland Planting

Wetland planting has been proposed for the water retention area to the north of the Weston plant site, for the temporary treatment pond to the west of Coal Pile Road and also to enhance remnant wetland at Ngapara.

<i>Juncus greggii</i>	Rush
<i>Carex secta</i>	Pukio
<i>Carex coriacea</i>	Tussock
<i>Cortaderia richardii</i>	Toe toe
<i>Typha orientalis</i>	Raupo
<i>Phormium tenax</i>	Flax
<i>Leptospermum scoparium</i>	Manuka



Schedule 2: Roading and Pedestrian Improvements

The recommendations define intersections and sites by route; indicating estimated cost (+/-30%) as at July 2007 pricing; and funding source (H=Holdim; S=Subsidy; W=WDC). The Subsidy percentage has been estimated by WDC Staff based on July 2007 figures. Alpha characters in parentheses indicate required timelines as (C) = pre-construction; (M) = midway between C and O; and (O) = pre-operation.

Required Improvements: \$,000 H% S% W%

B1(C) Weston Rd Railway Bridge – east of Saleyards Rd 50 21.5 57 21.5

Structurally strengthen the existing bridge to achieve a full Class I road without a lowered speed restriction for heavy commercial vehicles.

B2(C) Weston Rd Saleyards Rd – left turn from and into 30 16.5 67 16.5

Existing angled intersection requires 90 degree approaches with a left-turn lane eastbound from Weston Rd to Saleyards Rd and another left-turn lane from Saleyards Rd to Weston Rd eastbound.

D2(C) Weston Ngapara Rd Airedale Rd – NW footpath & crossing pt 40 75.0 -25.0

Construct a continuous footpath on the northern side of Weston Ngapara Rd from the Church (continuing along Charles St west) to Airedale Rd (opposite the School).

Create a north/south pedestrian crossing point across Weston Ngapara Rd from a point east of the Church to the Fire Station area. This will improve inter-visibility and pedestrian safety.

D3(C) Weston Ngapara Rd Airedale Rd –2 crossing points 40 16.5 67 16.5

Create two east/west pedestrian crossing points, one in Airedale Rd linking the

School to the footpath and crossing point described in D2 above.

The other crossing point on Whiterocks Rd positioned mid-block between Charles and Argyle Streets in the Commercial Zone.

G (M) Weston Ngapara Rd Coal Pit Rd – visibility / tee-up / widen 75 16.5 67 16.5

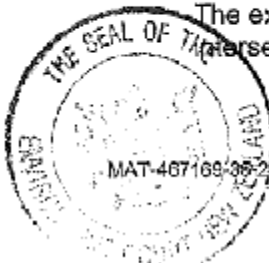
This angled intersection requires tee-up (to near 90 degrees) and minimal seal widening on all approaches. The slopes of the south-eastern bank require benching to provide adequate inter-visibility.

I (M) Weston Ngapara Rd Windsor Rd – redesign intersection 50 16.5 67 16.5

This wide intersection requires squaring up (to near 90 degrees) and channelised to improve the lateral positioning of all turning vehicle movements.

K (C) Peaks Rd from Windsor Rd – upgrade 60 100 -

The existing gravel road requires widening and sealing from Windsor Rd intersection (L1 below) to beyond the second residence to control dust and



allow
safe two-way traffic movements.

L1(C) Windsor Rd Peaks Rd – redesign intersection 20 16.5 67 16.5

This is another wide intersection that requires squaring up (to near 90 degrees) and channelised. Some of the improvements will be achieved through simple road marking.

L2(C) Windsor Rd localised improvements 75 16.5 67 16.5

Widen existing carriageway to minimise risk to all road users at horizontal and summit vertical curves.

O (M) Horse Gully Rd safety improvements to two-lane bridge 30 16.5 67 16.5

The existing guardrails reduce the effective width of the bridge and will be offset encouraging heavy commercial vehicles to be driven within their traffic lanes. The bridge abutments will be upgraded at the same time.

P (M) Horse Gully Rd Coal Pit Rd – visibility 25 16.5 67 16.5

The intervisibility for all turning manoeuvres requires improvement. Minor channelisation will improve the turning path of vehicles exiting Coal Pit Rd and the southbound vehicles right-turning into Coal Pit Rd will have additional intervisibility by benching the existing bank on the coast-side of Horse Gully Rd.

Q (O) Horse Gully Rd passing opportunities 250 16.5 67 16.5

The horizontal and vertical alignment of this route can frustrate drivers following slow vehicles. This project is likely to provide up to four additional passing opportunities on the Horse Gully Rd route with two in each direction.

R (M) Airedale Rd Teaneraki Rd – visibility 150 16.5 67 16.5

The intervisibility for all turning manoeuvres requires improvement. Some channelisation will improve the turning path of vehicles exiting Teaneraki Rd and the southbound vehicles right-turning into Teaneraki Rd will have additional intervisibility by benching the existing bank on the eastern side of Airedale Rd south of the intersection.

S (O) Airedale Rd passing opportunities 250 16.5 67 16.5

The horizontal and vertical alignment of this route can also frustrate drivers following slow vehicles. This project is likely to provide up to four additional passing opportunities on the Airedale Rd route with two in each direction.

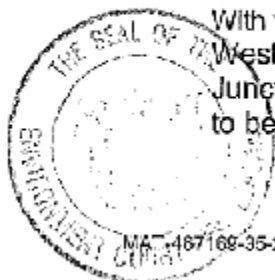
X (C) Main St / Airedale Rd (new item introduced by Holcim) 60 100

To provide for heavy vehicles travelling east from the Holcim area and turn left to proceed northbound on Airedale Road. Several options to be assessed

Weston Walkway: H SW

B3(C) Weston / West View Pedestrians – alternative to Rail Track 100 –

With the Rail Track being reverted to commercial rail, a suitable alternative Weston Walkway is required between Saleyards Road/Waiareka Junction, and the corner of Kia Ora Road and Weston Ngapara Road, to be shared by pedestrians and cyclists.



From Saleyards Road/Waiareka Junction to Whiterocks Road, the 'Walkway' will be constructed to the north-east of the roadway and separated by a grass berm. An appropriate walking / riding surface will have a minimum usable width of 2.2 metres. From Whiterocks Road to Kia Ora Road corner, the walkway shall be constructed in a convenient location either by following the rail corridor (upon suitable agreement with the Council and Ontrack) or on the road verge. ONTRACK is not obliged to accept the walkway on its land but will endeavour to do so subject to its operational and safety concerns being satisfactorily dealt with.

B4(C) Weston / West View Pedestrians – 6 crossing points 33.067

Along the Weston Rd / West View Rd route there are several clusters or groups of houses. The pedestrian crossing points will be placed to assist pedestrians and cyclists cross this route with maximum intervisibility and safety.

Note: The costs of B3 and B4 are covered by financial contribution paid by the consent holder under condition A25.



ORC CONSENTS



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater and drainage water to land

for the purpose of constructing and operating a cement manufacturing plant and associated facilities

for a term of 35 years

Location of activity: Adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

Legal description of land: Pt Lot 12 DP 195.

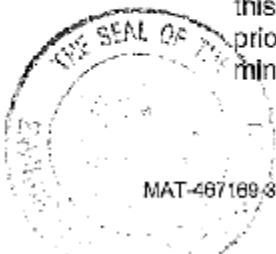
Map reference: NZMS 260 J41:436-695

Conditions:**General**

1. The discharge shall be only stormwater as described in the consent application received by the Consent Authority on 21 February 2007.
2. The treatment and disposal system shall be constructed and installed substantially in accordance with the details and plans supplied with the consent application submitted to the Consent Authority dated 21 February 2007.

Specific

3. The design criteria for the stormwater system shall be a minimum of:
 - (a) 10 year return period rainfall event for the design of primary drainage within the site; and
 - (b) 50 year return rainfall event for the design of treatment and overflow systems; and
 - (c) With the provision of appropriate overtopping provision for events in excess of the 50 year return period rainfall event, and designed and maintained so that there are no adverse effects on neighbouring properties.
4. The Consent Holder shall prepare a stormwater management plan. A copy of this stormwater management plan shall be submitted to the Consent Authority prior to exercising this consent. This plan shall be revised and updated at a minimum once every five years. The revised plan shall be forwarded to the



Consent Authority. The matters to be included in the environmental management plan shall include, but not be limited to the following:

- (a) Description of the water management system
 - (b) Design criteria including water reuse
 - (c) Results demonstrating consent compliance
 - (d) Design information on pond volumes, treatment efficiencies and design water levels
 - (e) Design drawings for water management infrastructure including treatment devices
 - (f) Locations of discharges
 - (g) Monitoring plan describing the sampling and analytical methodology (to be based on best practice) and including the location, frequency and parameters to be measured.
 - (h) Operation and maintenance plans including:
 - (i) Operator instructions for the water management infrastructure including for water for reuse;
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken;
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructures and consent non-compliance.
5. The Consent Holder shall inform the Consent Authority if concentrations of the parameters listed in Condition 8, and monitored under Condition 7, exceed the New Zealand Drinking Water Standards Maximum Allowable Values within an individual monitoring bore over any time period. The Consent Holder shall undertake an investigation of the cause, and prepare and implement an appropriate mitigation plan in association with the Consent Authority.

Monitoring

6. In consultation with the Consent Authority the Consent Holder shall install four peizometers surrounding the soil infiltration basins for the purpose of monitoring the impact of stormwater infiltration on shallow groundwater quality. The four bores should be drilled to a depth at least 5 metres below the water table and screened over at least one metre.
7. At three monthly intervals following the commencement of this consent the Consent Holder shall conduct groundwater quality monitoring. A representative sample shall be obtained from each of the on-site groundwater monitoring bores (as required to be installed under Condition 6).
- (a) The relative water level in each bore shall be measured and recorded prior to the collection of each groundwater sample.
 - (b) Groundwater sampling procedures shall be in accordance with "The New Zealand Guidelines for the Collection of Groundwater Samples for Chemical and Isotopic Analysis" science report 99/9, dated April 1999 and published by the Institute of Geological and Nuclear Sciences.
 - (c) To avoid cross-contamination between groundwater bores, exclusive water sampling devices shall be used in each bore.



- (d) For all other field equipment used between groundwater bores, appropriate decontamination measures shall be undertaken to avoid cross-contamination.
8. All sampling and analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority.
9. Groundwater samples collected under Condition 7, and analysed under Condition 8, shall be tested for the following parameters:
- (a) Total Recoverable Arsenic
 - (b) Total Recoverable Lead
 - (c) Total Recoverable Zinc
 - (d) Total Recoverable Copper
 - (e) Total Recoverable Nickel
 - (f) Total Recoverable Chromium
 - (g) Total Recoverable Cadmium
 - (h) pH
10. Analytical results from sampling required under this consent shall be forwarded within two months of sampling to the Consent Authority. The results to be provided shall include a copy of the original laboratory report and also be in electronic format (excel spreadsheet (.xls) or comma separated value (csv) format).
11. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report shall include as a minimum:
- (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects; and
 - (b) A comparison of data with previously collected data in order to identify any emerging trends; and
 - (c) A summary of any relevant observations made during any site works undertaken including internal monitoring of soil chemistry and infiltration rates within the soil infiltration basins; and
 - (d) Copies of the laboratory analytical results for any sampling undertaken; and
 - (e) Any remedial actions undertaken at the site;
 - (f) Any further remedial actions recommended; and
 - (g) Summary of maintenance activities during the monitoring period; and
 - (h) Meteorological information during the monitoring period including temperature and daily rainfall.
12. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 48 hours of identifying non-compliances.

Maintenance

13. The Consent Holder shall have an operation and maintenance manual for the stormwater management system. A copy of this operation and maintenance manual shall be submitted to the Consent Authority prior to exercising this



consent. The matters to be included in the operation and maintenance manual shall include, but not be limited to the following:

- (i) Operator instructions for the water management systems and equipment;
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken;
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructure and consent non-compliance.
14. The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report.

Review Condition

15. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of the each anniversary of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
16. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge contaminants to air

for the purpose of constructing and operating a cement manufacturing plant and associated facilities

for a term of 35 years

Location of activity: An area of approximately 0.5 square kilometres, adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

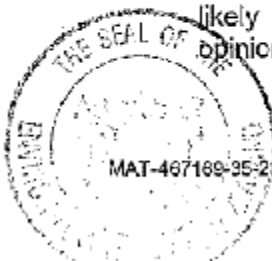
Legal description of land: Pt Lot 12 DP 195; Lot 1 DP 8498; Secs 61-62 Blk III Oamaru SD; Lots 1-4 DP 195; Pt Secs 1-2 Sec 30 Blk III Oamaru SD, Pt Sec 2 Sec 33 Block III Oamaru SD.

Map reference: Area bounded by:

NZMS 260 J41:437-697 (north)
 NZMS 260 J41:442-695 (north-east)
 NZMS 260 J41:444-683 (south-east)
 NZMS 260 J41:437-690 (south west)
 NZMS 260 J41:434-695 (north-west)

Conditions:**General**

1. (a) The discharges to air shall be from the manufacture of cement and the associated facilities on site.
 (b) Fuel burnt under this consent shall be limited to lignite coal, diesel and waste oil, as specified in the application.
 (c) No oils other than commercially available diesel or light fuel oil shall be used during kiln light up or restart.
2. The Consent Holder shall install and operate the plant and associated processes generally in accordance with the documentation provided in the application dated 21 February 2007 and any supplementary information provided to the Consent Authority subsequent to that application.
3. There shall be no discharge of odour as a result of the exercise of this permit that is noxious, dangerous, offensive or objectionable to an extent that it is likely to cause an adverse effect beyond the boundary of the site in the opinion of an authorised officer of the Consent Authority.



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4. There shall be no discharge of particulate matter as a result of the exercise of this permit that is noxious, dangerous, offensive or objectionable to an extent that it is likely to cause an adverse effect beyond the boundary of the site in the opinion of an authorised officer of the Consent Authority.
5. There shall be no discharge of other air pollutants as a result of the exercise of this permit that is noxious, dangerous, offensive or objectionable to an extent that it is likely to cause an adverse effect beyond the boundary of the site in the opinion of an authorised officer of the Consent Authority.
6. Where from any cause (accidental or otherwise), a discharge not authorised by this consent and associated with the Consent Holder's activities occurs otherwise than in conformity with this consent the Consent Holder shall:
 - (a) Proceed with all diligence to take such action or execute such work as may be necessary to stop such escape;
 - (b) Take all reasonable steps to remedy or mitigate any adverse effects resulting from the escape;
 - (c) Notify the Consent Authority within 48 hours; and
 - (d) Submit a written report within 72 hours of the escape, indicating the cause of the escape and the measures put in place to prevent a repeat of the escape.
7. Routine monitoring of oil fuels shall be carried out as follows:
 - (a) A representative sample of every consignment of oil fuel received at Weston shall be analysed for the following:
 - Lead
 - Cadmium
 - Mercury
 - Total Halogens
 - Sulphur
 - (b) If total halogens as measured by XRF exceed 4000ppm, then the sample shall be analysed quantitatively to determine total organic halogens.
 - (c) A composite sample, made up of sub-samples from different fuel shipments, shall be analysed for PCBs at least weekly. No more than 5 sub-samples shall form a composite. If PCBs are detected in the composite, then the sub-samples for each shipment shall be individually analysed for PCBs.
 - (d) All samples shall be retained for two years after the time of collection and shall be made available to the Council upon request.
 - (e) Each month, one of the samples under subclause (a) shall be analysed quantitatively by an independent accredited analytical laboratory for the following substances:
 - Lead
 - Arsenic
 - Cadmium
 - Chromium
 - Zinc
 - Total Organic Halogens



- Copper
- Mercury
- Aluminium
- PCBs

8. Other than as provided for below, any fuel oils received for which levels of the substances listed below exceed the following limits shall not be used as fuel without prior consultation with the Council and shall be disposed of as directed by the Council:

Lead	5000ppm
Cadmium	100ppm
Mercury	100ppm
PCBs	20ppm
Total Organic Halogens	4000ppm
Sulphur	3%

However, an oil shipment may be burnt prior to the PCB results being received. All results exceeding the above limit shall be notified to the Council within one week of the receipt of those results. The number of exceedances shall be no more than three in any 12-month period. If this is exceeded, then the Council may review this condition. Compliance with this condition shall be based on all results of all PCB analyses required by conditions.

Process Conditions

9. The height of the stack on the cement kiln baghouse shall extend to a height of at least 172 metres RL.
10. The height of the stack on the cement mill baghouse shall extend to a height of at least 123 metres RL.
11. The exit velocity of the exhaust gases from the cement mill baghouse and the cement kiln baghouse shall be designed to be at least 15 metres per second.
12. All baghouses that are designed to have an air flow rate that is 7,000 cubic metres per hour or more shall be fitted with burst bag detectors.
13. The baghouse on the exhaust of the cement kiln shall have multiple compartments, which can be individually isolated in case of bag failure. There shall be sufficient compartments in the baghouse to allow adequate performance to be maintained when filter bags fail. Each compartment shall be fitted with burst bag detectors.
14. The discharges from all stacks on site that are designed for exhausts that have an air flow rate greater than 10,000 cubic metres per hour shall be directed vertically into the air and shall not be impeded by any obstruction above the stack that decreases the vertical efflux velocity below that which would occur in the absence of such obstruction.
15. All stacks on site that are designed for exhausts that have an air flow rate of greater than 10,000 cubic metres per hour shall be fitted with sampling sockets that comply with ISO Method 9096:1992 (e), USEPA Method 1 or AS



4323.1 1995, or another method satisfactory to the Consent Authority, and safe and appropriate access shall be provided to the sampling plane.

16. (a) The consent holder shall undertake an optimisation process.
- (b) The purpose of the optimisation process is to establish steady state operating practices and procedures to ensure compliance with the conditions of this discharge permit.
- (c) The optimisation period shall commence with the first start up of the cement kiln and shall last for no longer than a total of 90 days of kiln operation.
- (d) The consent holder shall notify the consent authority of the first start up of the kiln by giving at least five working days' prior written notice to the consent authority.
- (e) Before the first start up of the cement kiln, the consent holder shall prepare and provide to the consent authority an optimisation management plan. The optimisation management plan shall set out the practices and procedures to be adopted to ensure compliance with this condition, other than as expressly provided by this condition.
- (f) During the optimisation period, the consent holder shall operate in accordance with the optimisation management plan at all times.
- (g) During the optimisation period, the consent holder shall monitor the emissions of the contaminants listed in tables 1 and 2 of condition 17 and total particulate in accordance with condition 21 of this discharge permit.
- (h) Within one month of the end of the optimisation period the consent holder shall report the monitoring results to the consent authority.
- (j) During the optimisation period, the limits on sulphur dioxide and nitrogen oxides in condition 17 shall apply. The consent holder shall minimise the emission of sulphur dioxide and nitrogen oxides so far as practicable during the optimisation period.
- (k) At the end of the optimisation period, the consent holder must achieve the limits in sulphur dioxide and nitrogen oxides in table 2 of condition 17.
- 16A. (a) There shall be no discharge of a visible plume which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.
- (b) The plant shall be designed, constructed and operated so that any visible plume shall be kept to a practical minimum.
- (c) The Consent Holder shall undertake electronic visual monitoring of the plume during hours of daylight using time lapse photography. A visual record and accompanying analysis shall be reported to the consent authority:



- (a) monthly for the first six months of operation and six months for the first two years; and
- (b) on a two yearly basis thereafter

The report shall include:

1. The percentage of daylight hours the plume was visible in the monitoring period.
2. The maximum period of time the plume was visible on any one day in the monitoring period.
3. The average period of time the plume was visible –
 - (a) Each day
 - (b) Each week
 - (c) Each month
 - (d) Each quarter
 - (e) Each year

throughout the monitoring period.

Emission Limits

17. Following the commissioning and optimisation process for the cement plant as provided in condition 16, the emissions of the contaminants discharged from the cement kiln baghouse shall not exceed the limits shown in Table 1, Table 2, Table 3 and condition 17A. Compliance with these emission limits shall be determined according to the monitoring required in Conditions 21 and 24.
 - (a) Compliance with the limits shown in Table 1, Table 2 (or Table 2A during the optimisation period) and Table 3 shall apply at all times the cement plant is operating except for a period of 16 hours when the plant is being started up from cold. During the 16-hour start up period the limits on sulphur dioxide, carbon monoxide and nitrogen oxides shall not apply.
 - (b) When the plant is being started up from cold the Consent Holder shall minimise the emission of sulphur dioxide, carbon monoxide and nitrogen oxides as far as practicable.
 - (c) The maximum values shown in Table 1 and Table 2 (or Table 2A during the optimisation period) shall be met on a daily average basis.
 - (d) During any rolling 24 hour period not more than one half hourly period shall exceed the maximum values shown in Table 1 and Table 2 (or Table 2A during the optimisation period) by more than 50 percent. For the purpose of this limit half hourly periods shall commence on the hour and on the half hour.
 - (e) The averaging period that will apply to emission limits shown in Table 3 will be the greater of 1 hour and the minimum sampling period specified in the appropriate test method.
 - (f) For the purposes of this condition heavy metals are:



- (i) Antimony
- (ii) Arsenic
- (iii) Cadmium
- (iv) Chromium
- (v) Cobalt
- (vi) Copper
- (vii) Lead
- (viii) Manganese
- (ix) Mercury
- (x) Nickel
- (xi) Thallium
- (xii) Vanadium

Table 1: Cement Kiln Emission Limits for Continuously Monitored Contaminants

Contaminant	Daily Maximum mass emission (kilograms per hour)
CO	180
Ammonia	10

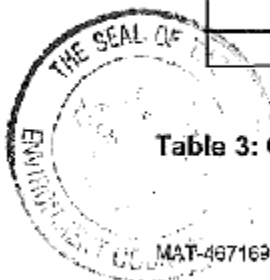
Table 2: Cement Kiln Emission Limits for Continuously Monitored Contaminants

Contaminant	Maximum Concentration (milligrams per cubic metre, corrected to 0 degrees Celsius, 101.3 kPa, 10% oxygen and a dry gas basis).
TSP	10
NO _x (as NO ₂)	500
SO ₂	400

Table 2A: Cement Kiln Emission Limits for Continuously Monitored Contaminants (during the optimisation period – see condition 16)

Contaminant	Maximum Concentration (milligrams per cubic metre, corrected to 0 degrees Celsius, 101.3 kPa, 10% oxygen and a dry gas basis)
TSP	10
NO _x (as NO ₂)	1,000
SO ₂	600

Table 3: Cement Kiln Emission Limits of Contaminants Measured Annually



Contaminant	Maximum mass emission (kilograms per hour)
Heavy Metals (total including Mercury and Cadmium)	0.15
Mercury	0.002
Cadmium	0.001
Dioxins and Furans	8×10^{-6} kg (TEQ)/hr
Hydrogen Chloride	7.5

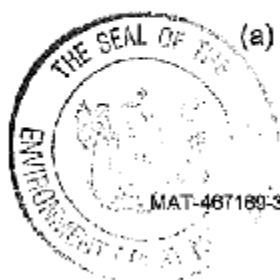
- 17A Following the commissioning and optimisation period for the cement plant as provided in condition 16, the emission of the sulphur dioxide discharged from the cement kiln baghouse shall not exceed the following limits:
- (a) Daily average sulphur dioxide emissions shall not exceed 300 milligrams per cubic metre, corrected to 0 degrees Celsius, 101.3 kPa, 10% oxygen and a dry gas basis, for more than 30 days in any full calendar year.
 - (b) Daily average sulphur dioxide emissions shall not exceed 180 milligrams per cubic metre, corrected to 0 degrees Celsius, 101.3 kPa, 10% oxygen and a dry gas basis, for more than 50% of days in any full calendar year.
18. The total particulate emissions from the site shall not exceed a daily average maximum of 7.35 kilograms per hour. Compliance with this emission limit shall be determined according to the monitoring required in Conditions 21, 22, 24, 25 and 26.
19. The emissions of total particulates from all baghouses on site that are designed for exhausts that have an air flow rate of 7000 cubic metres per hour or more, shall not exceed a maximum concentration of 10 milligrams per cubic metre (dry gas, 273°K, 101.3 kPa). In the event of bag failure immediate remedial action must be taken.

During any rolling 24 hour period, not more than one half hourly period shall exceed the maximum concentration of 10 milligrams per cubic metre (dry gas, 273 °K, 101.3 kPa) by more than 50 percent.

Emission Monitoring

20. All continuous monitoring equipment shall be operated, maintained and calibrated in accordance with the manufacturers' specifications and the requirements of the specified monitoring methods.
21. The Consent Holder shall install, calibrate, maintain and operate a continuous emission monitoring system for measuring the contaminants discharged from the cement kiln baghouse and the cement kiln baghouse exhaust gas physical characteristics, including temperature, flow rate, oxygen and moisture content.

- (a) The continuous emissions monitoring system shall be able to continuously measure and record the parameters shown in Table 1 and Table 2. The measurements shall be in accordance with the



methods shown in Table 4. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority.

Table 4: Continuous Monitoring Methods

Contaminant	Method
Total Particulates	ISO 10155 Stationary source emissions - Automated monitoring of mass concentrations of particles - Performance characteristics, test methods and specifications, <u>OR</u> US EPA Method PS11 - Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Source
Sulphur dioxide	ISO 7935 Stationary source emissions - Determination of the mass concentration of sulfur dioxide - Performance characteristics of automated measuring methods, <u>OR</u> US EPA CEMS 2 Performance Specification 2 - Specifications And Test Procedures for SO ₂ and NO _x Continuous Emission Monitoring Systems in Stationary Sources
Nitrogen oxides	ISO 10849 Stationary source emissions - Determination of the mass concentration of nitrogen oxides - Performance characteristics of automated measuring systems, <u>OR</u> US EPA CEMS 2 Performance Specification 2 - Specifications and Test Procedures for SO ₂ And NO _x Continuous Emission Monitoring Systems in Stationary Sources
Carbon monoxide	ISO 12039 Stationary source emissions - Determination of carbon monoxide, carbon dioxide and oxygen - Performance characteristics and calibration of automated measuring systems, <u>OR</u> US EPA CEMS 4 - Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources <u>OR</u> US EPA CEMS 4A Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources
Volatile organic compounds	US EPA CEMS 8 - Performance Specifications for Volatile Organic Compound Continuous Emission Monitoring Systems in Stationary Sources
Ammonia	Hybrid test method based on CEMS 2 or US EPA Test Method 320 Measurement of Vapour Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy
Exhaust gas temperature	ISO 10396 Stationary source emissions - Sampling for the automated determination of gas emission concentrations for permanently installed monitoring systems, <u>OR</u> US EPA CEMS 6 - Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources
Exhaust gas volumetric flow rate, or exhaust gas exit velocity	ISO 10396 Stationary source emissions - Sampling for the automated determination of gas emission concentrations for permanently installed monitoring



Contaminant	Method
	systems, <u>OR</u> US EPA CEMS 6 - Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources
Exhaust gas moisture content	ISO 10396 Stationary source emissions - Sampling for the automated determination of gas emission concentrations for permanently-installed monitoring systems <u>OR</u> US EPA CEMS 6 - Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources
Exhaust gas oxygen content	ISO 10396 Stationary source emissions - Sampling for the automated determination of gas emission concentrations for permanently-installed monitoring systems, <u>OR</u> US EPA CEMS 3 - Specifications and Test Procedures for O ₂ and CO ₂ Continuous Emission Monitoring Systems in Stationary Sources

- (b) The continuous emissions monitoring system shall be operated and the data recorded during all periods of operation of the kiln except for continuous emissions monitoring system breakdowns and repairs.
- (c) The data collected by the continuous emissions monitoring system shall be used to calculate compliance with the emission standards specified in Condition 17.
22. The Consent Holder shall install, calibrate, maintain and operate a continuous emission monitoring system for measuring the contaminants discharged from the cement mill baghouse and the cement mill baghouse exhaust gas flow rate.
- (a) The continuous emissions monitoring system shall be able to continuously measure and record total particulate. The measurements of total particulates shall be in accordance with a method of satisfaction to the Consent Authority.
- (b) The continuous emissions monitoring system shall be operated and the data recorded during all periods of operation of the cement mill except for continuous emissions monitoring system breakdowns and repairs.
- (c) The data collected by the continuous emissions monitoring system shall be used to calculate compliance with the emission standards specified in Condition 18.
23. The Consent Holder shall investigate continuous emissions monitoring methods for measuring PM₁₀. If and when methods become available that are reliable and practical the Consent Holder shall install, calibrate and maintain such a system in the cement kiln and cement mill baghouse stacks.
24. The Consent Holder shall commission an IANZ accredited stack testing professional or equivalent approved by the Consent Authority to measure the discharges from the cement kiln baghouse exhaust within six months of the commencement of cement manufacture and thereafter once every 12 months. Each measurement shall constitute at least three individual tests for each contaminant. The results of the measurements shall be reported as the average of the three individual tests for each contaminant. The contaminants to be tested and the methods to be used are shown in Table 5. Where the



specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. The plant operating parameters such as production rate and fuel mix shall be recorded during the testing procedure.

Table 5: Cement Kiln Baghouse Exhaust Annual Emissions Monitoring

Contaminant	Method
Total Particulate	US EPA Method 5 - Determination of Particulate Matter Emissions From Stationary Sources, <u>OR</u> ISO 9096:1992 (E) Stationary Source Emissions. Determination of concentration and mass flow rate of particulate material in gas-carrying ducts – manual gravimetric method, <u>OR</u> Equivalent Methods.
PM ₁₀ and PM _{2.5}	US EPA Conditional Test Method 40 – Method for the Determination of PM ₁₀ And PM _{2.5} Emissions (Constant Sampling Rate Procedures)
Sulphur dioxide	US EPA Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources, <u>OR</u> US EPA Method 6A - Determination Of Sulfur Dioxide, Moisture, And Carbon Dioxide from Fossil Fuel Combustion Sources <u>OR</u> US EPA Method 6B - Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions from Fossil Fuel Combustion Sources
Nitrogen oxides	US EPA Method 7– Determination of nitrogen oxide emissions from stationary sources
Heavy Metals	US EPA Method 29 Metals Emissions from Stationary Sources
Dioxins and Furans	US EPA Method 23 Dioxin and Furan
Hydrogen Chloride	US EPA Method 26 Hydrogen Chloride, Halides, Halogens
Ammonia	US EPA CTM 027 Procedure for Collection and Analysis of Ammonia in Stationary Sources
Volatile organic compounds	USEPA Method 18 Measurement of gaseous organic compound emissions by gas chromatography <u>OR</u> US EPA Method 25A - Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer
Benzene	US EPA Method 18 Measurement of gaseous organic compound emissions by gas chromatography

25. The Consent Holder shall commission an IANZ accredited stack testing professional or equivalent approved by the Consent Authority, to measure the discharges of total particulates, PM₁₀ and PM_{2.5} from the cement mill baghouse exhaust six months after the commencement of cement

manufacture and once every 12 months thereafter. Each measurement shall constitute at least three individual tests for each contaminant. The results of the measurements shall be reported as the average of the three individual tests for each contaminant. The methods to be used shall be those for total particulate PM_{10} and $PM_{2.5}$ given in Table 5. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. The tests shall be undertaken as far as practical when the cement mill is operating at maximum throughput. The cement mill throughput shall be recorded during the testing procedure.

26. At least once every five years, the Consent Holder shall measure the discharge of total particulates from each baghouse on site, other than the cement kiln baghouse and the cement mill baghouse, provided that the bag house has its own separate discharge stack and its design exhaust gas flow rate is greater than 10,000 cubic meters per hour. The results of this monitoring shall be compared to the emission concentration limit set in Condition 19. The Consent Holder may choose to test all such bag houses in one year or choose to test them on a revolving basis providing that each bag house is tested at least once every five years.

Ambient Monitoring

27. All continuous ambient monitoring equipment shall be operated, maintained and calibrated in accordance with the manufacturers' specifications and the requirements of the specified monitoring methods.
28. All ambient monitoring sites shall be sited in accordance with Australian Standard AS 2922 1987 as far as possible and to the Consent Authorities satisfaction. When the site location does not meet the standard requirements, the non-conformance with the standard shall be recorded in the site information.
29. The Consent Holder shall commission a contractor approved by the Consent authority to continuously measure and record the concentration of PM_{10} in ambient air at one location using a continuous monitor that is able to measure and record 1 hour average concentrations. The monitor shall use a continuous method that is recommended by the Ministry for the Environment as suitable to determine compliance with the National Environmental Standard for ambient PM_{10} concentrations.
- (a) The monitoring shall take place at or about the following location and as shown on the figure attached as Appendix 1 to this consent:
 - (i) The vicinity of Weston Primary School
 - (b) The monitoring site shall be to the satisfaction of the Consent Authority.
 - (c) The PM_{10} monitoring shall commence at least 12 months prior to the commencement of cement manufacture.
30. The Consent Holder shall continuously measure and record the concentration of PM_{10} in ambient air at one location using a continuous monitor that is able to measure and record 1 hour concentrations. The monitor shall use a continuous method that is recommended by the Ministry for the Environment as suitable to determine compliance with the National Environmental Standard for ambient PM_{10} concentrations.

- (a) The PM₁₀ monitoring shall take place on the western side of Weston Ngapara Road opposite the main cement plant site where atmospheric dispersion modelling predicted the highest offsite concentrations are likely to occur.
 - (b) The monitoring site shall be to the satisfaction of the Consent Authority.
 - (c) Within one month of each anniversary of the commencement of cement manufacture, the Consent Holder may, with the written agreement of the Consent Authority discontinue the PM₁₀ monitoring required by this condition, if monitoring indicates that ambient PM₁₀ concentrations have not exceeded 50 micrograms per cubic metre, or if it can be confirmed that any exceedance of 50 micrograms per cubic metre can be attributed to a source or sources other than the activities of the Consent Holder.
 - (d) Notwithstanding the requirements of Condition 17, emissions from the Consent Holder's premises shall not significantly contribute to, nor cause the ground level concentrations of PM₁₀ to exceed 50 micrograms per cubic metre of air, expressed as a 24 hour average at the monitoring station required under Condition 30(a).
31. The Consent Holder shall commission a contractor approved by the Consent authority to continuously measure and record the concentration of sulphur dioxide in ambient air at one location using a continuous monitor that is able to measure and record 1 hour average concentrations. The monitoring method shall be AS 3580.4.1:1990, Methods for sampling and analysis of ambient air – Determination of sulphur dioxide – Direct-reading instrumental method or another equivalent method. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority.
- (a) The monitoring shall take place at or about the following location and as shown on the figure attached as Appendix 1 to this consent.
 - (i) The vicinity of Weston Primary School
 - (b) The monitoring sites shall be to the satisfaction of the Consent Authority.
 - (c) The sulphur dioxide monitoring in the vicinity of Weston Primary School shall commence at least 12 months prior to the commencement of cement manufacture.
 - (d) Within one month of each anniversary of the commencement of cement manufacture, the Consent Holder may, with the written agreement of the Consent Authority discontinue the sulphur dioxide monitoring required by this condition, at Weston School if monitoring indicates that ambient sulphur dioxide concentrations have not exceeded the Otago Goal Levels of 230 micrograms per cubic metre (1 hour average) in the preceding 12 month period at that site, or if it can be confirmed that any exceedance of these thresholds can be attributed to a source or sources other than the activities of the Consent Holder.
32. The Consent Holder shall continuously measure and record the concentration of sulphur dioxide in ambient air at one location using a continuous monitor that is able to measure and record 1 hour average concentrations. The monitoring method shall be AS 3580.4.1:1990, Methods for sampling and analysis of ambient air – Determination of sulphur dioxide – Direct-reading instrumental method, or another equivalent method. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority.



- (a) The monitoring shall take place at or about the following location and as shown on the figure attached as Appendix 1 to this consent:
 - (i) On the western side of Weston Ngapara Road opposite the main cement plant site where atmospheric dispersion modelling predicted the highest offsite concentrations are likely to occur.
 - (b) The monitoring sites shall be to the satisfaction of the Consent Authority.
 - (c) The sulphur dioxide monitoring on the western side of Weston Ngapara Road opposite the main cement plant site shall commence at or before the commencement of cement manufacture.
 - (d) Within one month of each anniversary of the commencement of cement manufacture, the Consent Holder may, with the written agreement of the Consent Authority discontinue the sulphur dioxide monitoring required by this condition, on the western side of Weston Ngapara Road opposite the main cement plant site, if monitoring indicates that ambient sulphur dioxide concentrations have not exceeded the Otago Goal Level of 230 micrograms per cubic metre (1 hour average) in the preceding 12 month period at that site, or if it can be confirmed that any exceedance of the Otago Goal Levels can be attributed to a source or sources other than the activities of the Consent Holder.
 - (e) Notwithstanding the requirements of Condition 17, emissions from the Consent Holder's premises shall not significantly contribute to, nor cause the monitored ground level concentrations of sulphur dioxide to exceed 350 micrograms per cubic metre of air expressed as a one hour average at or beyond the property boundary of the Consent Holders premises.
33. The Consent Holder shall monitor the ambient concentrations of sulphur dioxide at three sites using passive sampling techniques that provide monthly average concentrations.
- (a) The monitoring shall take place at or about the following locations and as shown on the figure attached as Appendix 1 to this consent:
 - (i) The vicinity of Weston Primary School
 - (ii) On the western side of Weston Ngapara Road opposite the main cement plant site where atmospheric dispersion modelling predicted the highest offsite concentrations are likely to occur.
 - (iii) On the top of the escarpment to the north of the main cement plant site.
 - (b) The monitoring sites shall be to the satisfaction of the Consent Authority.
 - (c) The passive sampling of sulphur dioxide shall commence at or before the commencement of cement manufacture for the site required in (a)(iii) and at least three months prior to the cessation of continuous monitoring at either of the sites required in a(i) and (ii).
 - (d) Within one month of each anniversary of the commencement of cement manufacture, the Consent Holder may, with the written agreement of the Consent Authority discontinue the sulphur dioxide monitoring required by this condition, if monitoring indicates that ambient sulphur dioxide concentrations have not exceeded 20 micrograms per cubic metre (monthly average) in the preceding 12 month period at that site, or if it can be confirmed that any exceedance of 20 micrograms per cubic metre (monthly average) can be attributed to a source or sources other than the activities of the Consent Holder.



34. The Consent Holder shall monitor dust deposition rates on a 30 day average basis at a site on the western side of Weston Ngapara Road opposite the main cement plant site during the construction of the cement manufacturing plant. The monitoring shall begin at or before site preparation work begins on the cement manufacturing plant site and shall continue until cement manufacturing has commenced and all site development works are complete. The monitoring method used shall be in accordance with ISO Standard ISO/DIS 4222.2 Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method 1980. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority.
35. The Consent Holder shall monitor background dust deposition rates at 30 day intervals at two sites in accordance with draft ISO Standard ISO/SIS 4222.2 Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method, 1982. Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site. The background monitors shall be located in Ngapara and Weston at locations that are sufficiently removed from the quarry activities so that they will not be affected by emissions from the quarry. The monitoring required in this condition is also required by Consents 2007.187 and 2007.200.
36. If any insoluble dust deposition measurements exceed 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period, the Consent Holder shall undertake an immediate review of dust mitigation methods, unless it can be demonstrated that sources other than the plant have contributed the majority of the deposition. This review shall establish the cause of the high results and recommend measures to improve the level of dust mitigation. A report outlining the findings of this review shall be provided to the Consent Authority within 1 month of the high result being received.
37. Vegetation monitoring for sulphur dioxide effects shall be undertaken at the following locations:
- The exotic species on neighbouring land immediately north of the application site;
 - On trees near the existing limeworks; and
 - On native vegetation on the adjacent escarpment.
- This monitoring shall be undertaken 12 months after the commencement of manufacturing and thereafter on a 5 yearly basis. The results shall be submitted to the Consent Authority within one month of their receipt.
38. The Consent Holder shall collect soil samples from the following locations:
- Beside the exotic species on neighbouring land immediately north of the application site;
 - On the property with Legal Description Lot 1 DP 21616 across Weston Ngapara Road from the south end of the plant site;
 - Beside native vegetation on the adjacent escarpment.

Note: The location of the sampling sites is shown in Appendix 2.



The soil samples shall be sent to an independent laboratory approved by the Consent Authority and analysed for the following metals:

- (i) Cadmium
- (ii) Lead
- (iii) Thallium
- (iv) Mercury
- (v) Antimony
- (vi) Arsenic
- (vii) Manganese
- (viii) Cobalt
- (ix) Copper
- (x) Chromium
- (xi) Nickel
- (xii) Vanadium

This monitoring shall be undertaken 12 months after the commencement of manufacturing and thereafter on a five yearly basis, and results shall be submitted to the consent authority within one month of their receipt.

Meteorological Monitoring

39. The Consent Holder shall commission a contractor approved by the Consent authority to install and operate a meteorological data collection station. The station shall use a mast that is at least six metres high.
- (a) At a minimum the meteorological data collection station shall electronically monitor using an automated logging system capable of hourly resolution, the following parameters:
 - (i) Wind speed (0 – 55 metres per second ± 2 percent)
 - (ii) Wind direction (0 degrees- 360 degrees, ± 5 degrees, referenced to True)
 - (iii) Air temperature (-30 degrees Celsius – 70 degrees Celsius ± 0.3 degrees Celsius)
 - (iv) Humidity (0 percent -100 percent relative humidity ± 5 percent)
 - (v) Atmospheric pressure (500 hectopascals-1100 hectopascals ± 2 hectopascals)
 - (b) The meteorological data collection station shall be sited at the following location:
 - (i) At or about the vicinity of Weston School
 - (c) The meteorological data collection station shall begin operation at least 12 months prior to the commencement of cement manufacture.
40. The Consent Holder shall operate a meteorological data collection station. The station shall use a mast that is at least thirty metres high.
- (a) At a minimum the meteorological data collection station shall electronically monitor using an automated logging system capable of hourly resolution, the following parameters:
 - (i) Wind speed (0 – 55 metres per second ± 2 percent)
 - (ii) Wind direction (0 degrees- 360 degrees, ± 5 degrees, referenced to True)
 - (iii) Air temperature (-30 degrees Celsius - 70degrees Celsius ± 0.3 degrees Celsius)



- (iv) Humidity (0 percent -100 percent relative humidity \pm 5 percent)
 - (v) Atmospheric pressure (500 hectopascals - 1100 hectopascals \pm 2 hectopascals)
 - (vi) Temperature (at two heights – 10 metres and 30 metres).
The meteorological data collection station shall be sited at the following location
 - (i) Main cement plant site
- (c) The meteorological data collection station shall begin operation at least 12 months before the preparation of the Management Plan required by Condition 41 of this consent, to provide the additional meteorological data for the report required by Condition 42.

Environmental Management Plan (Air)¹

41. The Consent Holder shall prepare and implement an Environmental Management Plan that includes management methods to minimise discharges to air. The environmental management plan shall be prepared and provided to the Consent Authority for certification that it addresses matters listed in (a)-(o) below prior to the commencement of construction. The environmental management plan shall be reviewed annually thereafter. The matters to be included in the environmental management plan shall include but not be limited to the following:

- (a) A description of the discharges to air on site.
- (b) The methods undertaken to prevent dust being generated within the site during construction and operation of the plant. These shall include all of the methods described in the application relating to control of dust from the concrete batching plant, excavation, construction activities, yard areas, haul roads, stockpiles and vehicles.
- (c) A description of the operating procedures, including contingency procedures, that will be undertaken to ensure compliance at all times with the conditions of this consent including measures to keep any visible plume to a practical minimum as required by condition 9 of this consent.
- (d) The methods undertaken to prevent odours being generated from the onsite waste water treatment plant.
- (e) The operating and maintenance requirements for the manufacturing plant, the emissions control equipment and any ancillary equipment on site such as the emergency generator.
- (f) A contingency plan for the breakdown of any section of the manufacturing plant and emissions control equipment.
- (g) A contingency plan for the control of any emergency release of contaminants from the plant, including procedures for notification of the consent authority and remediation and mitigation plans.
- (h) A start up and shut down plan for the plant.
- (i) A method for recording and responding to complaints from the public.
- (j) A system for recording all maintenance undertaken on the manufacturing plant and emissions control equipment.
- (k) A description of the emissions monitoring required and how it is to be carried out, the methods to be used, and routine calibration and maintenance plans.

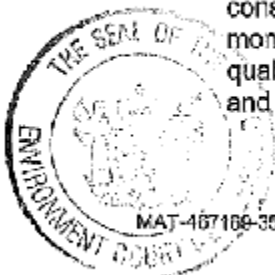
Note: This Environmental Management Plan could be consolidated with all other Environmental Management Plans required by Regional Consents, for each site, provided that all matters required under each plan are addressed.



- (l) A description of the ambient air quality, deposition and meteorological monitoring required and how it is to be carried out including a description of the monitoring sites, routine calibration and maintenance plans, and the methods and equipment used.
- (m) A description of the reporting requirements and how they are to be carried out.
- (n) Training of employees and contractors to make them aware of the requirements of the environmental management plan.
- (o) Assignment of responsibility for reviewing and implementing the plan.

Reporting Requirements

42. The Consent Holder shall submit a report, prepared in consultation with the Consent Authority by appropriately qualified and experienced personnel, confirming that the cement plant design and/or operating regime are such that compliance with the Ambient Air Quality Standards contained in "Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and other toxics) Regulations 2004" will be met under all conditions and will not result in PM₁₀ concentrations that are more than 10 µg/m³ (24 hour average) above ambient background levels at any residence existing at 1 January 2009. This report shall utilise the further meteorological data collected in accordance with Condition 40 of this consent, and Condition A14 of LCR07/08. This report shall be submitted to the Consent Authority prior to the preparation of the Environmental Management Plan required by Condition 41.
43. The Consent Holder shall prepare in consultation with the Consent Authority, a report which outlines the measures to be undertaken including plant design and operational procedures, which ensures plume visibility will be consistent with Condition 9 of this consent. This report should include detail on how the Selective Non Catalytic Reduction system will be managed to ensure it will not contribute to plume visibility. This report shall be submitted to the Consent Authority prior to the preparation of the Environmental Management Plan required by Condition 41.44. The Consent Holder shall notify the Consent Authority at least five working days prior to any cold start of the cement manufacturing plant of its intention to undertake a cold start. The Consent Holder shall advise the Consent Authority of the date and time the plant will be started and the name and contact details of the person in charge of the procedure.
45. The Consent Holder shall notify the Consent Authority as soon as practicable of any plant malfunction or breakdown that results in an abnormal discharge. The Consent Holder shall advise the Consent Authority within 72 hours in writing of the malfunction, the causes of the plant malfunction or breakdown and the repairs and remediation that were undertaken or are being undertaken to prevent a repeat of the malfunction or breakdown.
46. The Consent Holder shall produce an annual summary report by 31 March each year following the commencement of this consent, on all the discharge monitoring and ambient air monitoring required by the conditions of this consent for the previous year. The report shall include an analysis of the monitoring data in relation to compliance with discharge limits and ambient air quality guidelines and standards, taking into consideration plant production and meteorological conditions during the monitoring period. The analysis and



presentation of the data shall be in accordance with the Ministry for the Environment "Good Practice Guide for Air Quality Monitoring and Data Management" (December 2000).

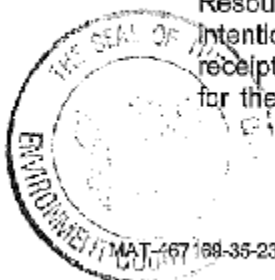
47. Within 18 months of the commencement of cement manufacture and at five yearly intervals thereafter, the Consent Holder shall conduct a review of:
- (i) Technology for the control of emissions to air from the cement manufacturing plant.
 - (ii) Technology for the continuous measurement of PM10 discharges.
 - (iii) The results of monitoring required by the conditions of this consent.
 - (iv) The ambient monitoring programme.
 - (v) Any relevant guidelines for discharges to air.
 - (vi) Any relevant ambient air quality standards and guidelines.
- (a) As part of this review, the Consent Holder shall recommend any practicable reductions in emissions to the environment and any changes required to the ambient monitoring programme.
 - (b) The results of this review shall be provided to the Consent Authority.

Review Conditions

48. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the receipt of the ambient monitoring results required under Conditions 27 to 40, for the purpose of assessing the need to adjust the discharge limits contained in the conditions of this consent if the results presented in the report indicate that the ambient levels of contaminants are exceeded in any of the following situations:

- (a) Any 1-hour sulphur dioxide measurements taken over a calendar year as required by monitoring Conditions 31 and 32 exceed 450 micrograms per cubic metre that can be attributed to the Consent Holder's activities.
- (b) More than three 1-hour sulphur dioxide measurements taken over a calendar year as required by monitoring Conditions 31 and 32 exceed 350 micrograms per cubic metre that can be attributed to the Consent Holder's activities.
- (c) Any single 24 hour PM10 measurement taken in a calendar year as required by monitoring Conditions 29 and 30 exceeds 50 micrograms per cubic metre that can be attributed to the Consent Holder's activities.
- (d) More than one 24 hour PM10 measurement taken in a calendar year as required by monitoring Conditions 29 and 30 exceeds 35 micrograms per cubic metre that can be attributed to the Consent Holder's activities.

48A. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the receipt of the ambient monitoring results required under Conditions 34 to 36, for the purpose of assessing the need to require additional dust monitoring

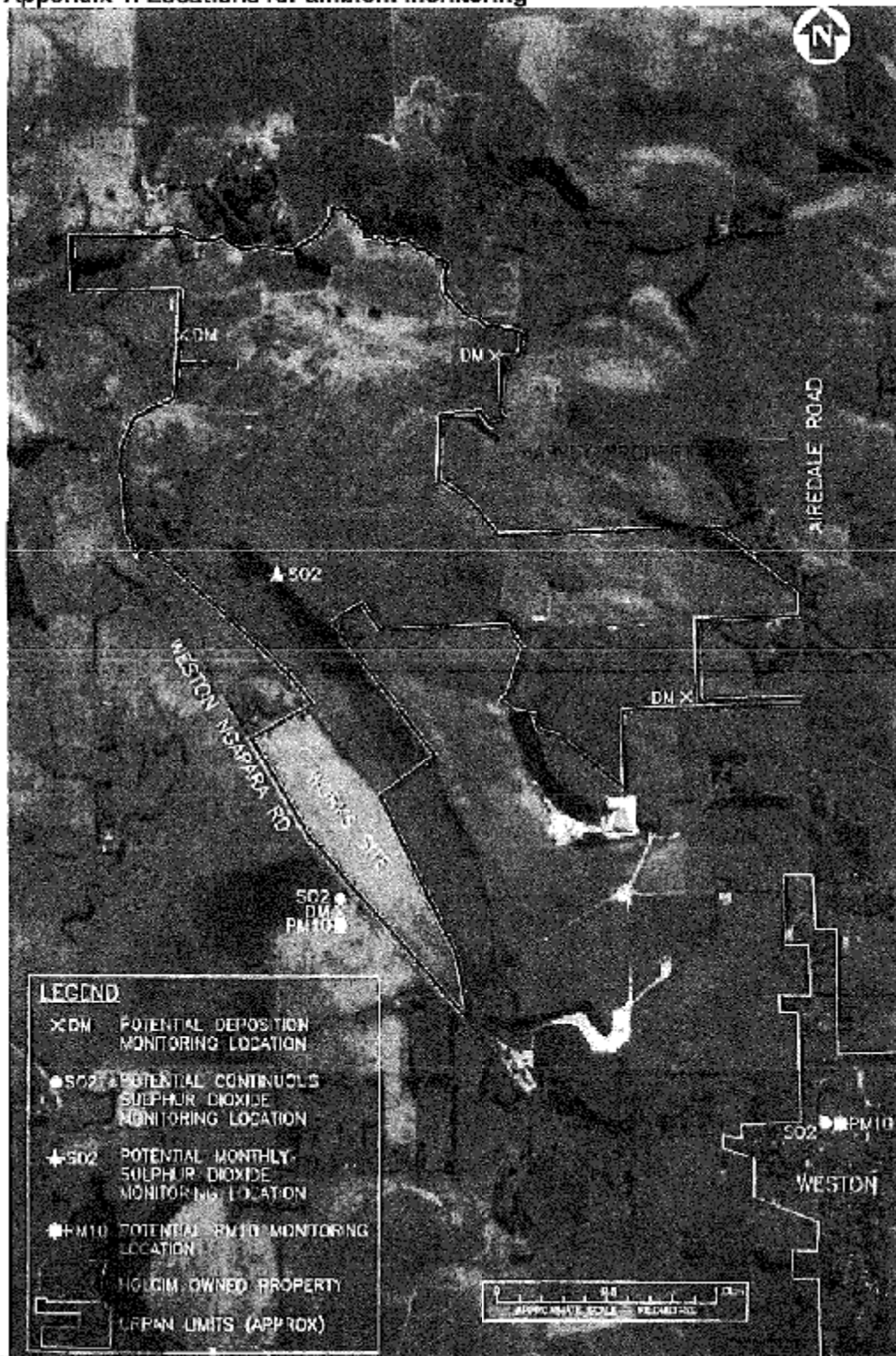


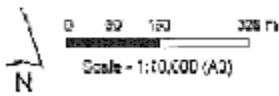
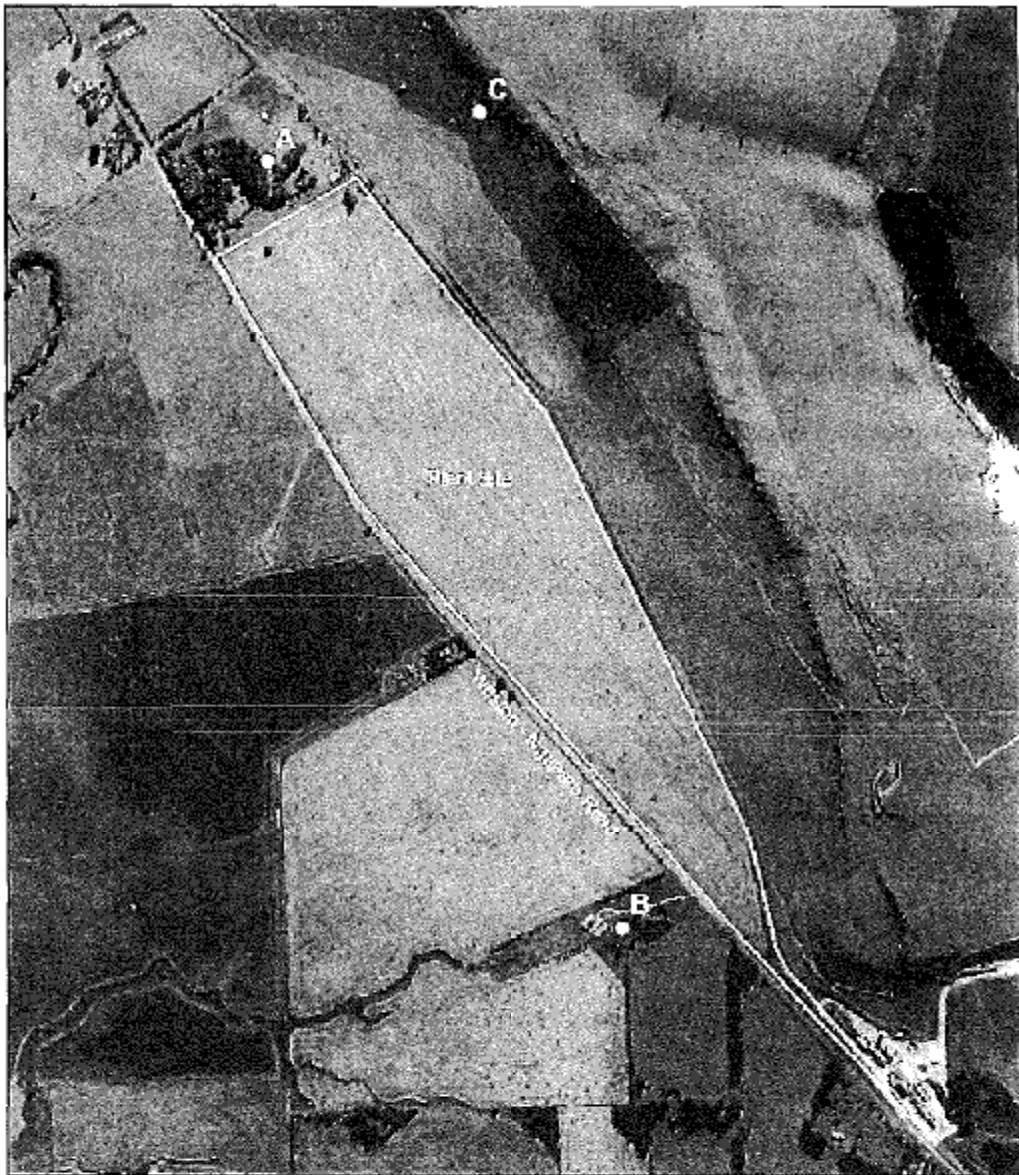
and reporting if the results presented in the report indicate that the ambient levels of contaminants are exceeded in the following situation:

- (a) More than one 30 day insoluble dust deposition measurement taken over a calendar year as required by monitoring Condition 34 exceeds 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period as required by Condition 35 that can be attributed to the Consent Holder's activities.
49. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the anniversary of the commencement of this consent, and every two years following that period, for the purpose of:
- (a) Ensuring the conditions of this consent are consistent with any National Environmental Standards;
 - (b) Determining whether the conditions of this consent are adequate to deal with any adverse effects on the environment, which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent;
 - (c) Determining whether the conditions of this consent are appropriate based on the results of the reviews undertaken pursuant to Conditions 46 and 47.
 - (d) Ensuring compliance with condition 16A of this consent.
50. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Appendix 1: Locations for ambient monitoring

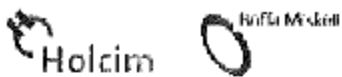




APPENDIX 2
Soil Sampling Points - Weston

16th April 2009
contact: per.yvonne@biffaworld.co.uk
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ref: 0201436_01180 on 2_090909



MAT-467169-35-231-V1.sjg

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge treated wastewater to land

for the purpose of disposal of wastewater from staff facilities at the Weston Cement Plant site

for a term of 35 years

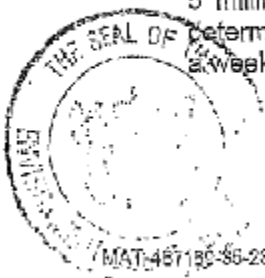
Location of activity: Adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago:

Legal description of land at point of discharge: Pt Lot 12 DP 195; Lot 2 DP 195; Lot 3 DP 195; Pt Lot 12 DP 195

Map reference: NZMS 260 J41:437-691

Conditions:

1. The discharge shall only be wastewater from staff facilities, as described in the consent application submitted to the Consent Authority on 21 February 2007.
2. (a) The treatment and disposal system shall be constructed and installed in accordance with the details and plans supplied with the consent application submitted to the Consent Authority on 21 February 2007, and prior to installation the Consent Holder shall submit to the Consent Authority an engineered design that takes into account the need to ensure appropriate disinfection enabling reuse for truck washing and toilet flushing, and appropriate percolation, loading and monitoring for the system.
 (b) Prior to commissioning the treatment and disposal system of this consent, the Consent Holder shall supply the Consent Authority with a Producer Statement or a Certificate of Compliance, certifying that the treatment and disposal system has been installed in accordance with Condition 2(a).
3. The volume of effluent discharged shall not exceed 7,400 litres per day and shall be evenly distributed over the entire disposal field (except those parts of the field being rested), such that the maximum application rate does not exceed 5 millimetres per day in any part of the disposal field. For the purpose of determining compliance with this condition, the daily volume shall be based on a weekly average, measured in accordance with condition 4.



4. The Consent Holder shall install a flow meter on the outlet pipe from the treatment system and continually measure and record the daily (based on a weekly average) volume of effluent being discharged to the disposal field. The Consent Holder shall, beginning 13 months after the first date of exercise of this consent and every 12 months thereafter, and upon request, forward the record for the previous 12-month period to the Consent Authority.
5. Within three months of the commencement of this consent, the Consent Holder shall prepare and forward to the Consent Authority an Operations and Management Manual for the treatment and disposal system, to ensure its effective and efficient operation at all times. The system shall be operated in accordance with this manual, which may be updated as appropriate. The manual shall include, but not be limited to:
 - (a) A brief description of the treatment system, including a site map indicating
 - (b) The location of the treatment system, discharge location and monitoring sites;
 - (c) Key operational matters;
 - (d) Monitoring and reporting procedures, including but not limited to:
 - (i) Contingency plan for system malfunction and breakdown;
 - (ii) Contingency plan for maintaining effluent quality during periods of peak flows;
 - (e) Population numbers that the system is designed to accommodate for;
 - (f) A complaints and system malfunctions recording system; and
 - (g) Details of the measures to be taken to meet the quality of discharge set out in Condition 8.

The record of complaints and malfunctions shall be submitted to the Consent Authority within two weeks after any complaint or malfunction occurring, together with the details of the remedial measures taken. At all times, the consent holder shall ensure that the Consent Authority has a copy of the up to date Operations and Management Manual.

6. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Consent Authority. All analysis carried out in connection with the consent shall be performed by a laboratory that meets ISO 17025 standards, or otherwise as specifically approved by the Consent Authority.
7.
 - (a) Beginning three months after the first date of exercise of this consent, the Consent Holder shall collect quarterly, representative samples of the final effluent, prior to discharge to the disposal field.
 - (b) After compliance with Condition 8 has been verified for eight consecutive sampling occasions, the Consent Holder shall at least twice a year, and approximately six months apart, collect representative samples of the final effluent, prior to discharge to the disposal field.
 - (c) Each sample collected under this condition shall be analysed for:
 - (i) Five day biochemical oxygen demand (BOD₅);
 - (ii) Total suspended solids;
 - (iii) Total nitrogen;
 - (iv) Escherichia coli.
 - (d) The analytical sampling results shall be reported in writing to the Consent Authority within 14 days of the Consent Holder receiving the results.



8. Beginning three months after the first date of exercise of this consent, final effluent discharged to the disposal field shall comply with the following criteria:

Parameter	Maximum value
Five day biochemical oxygen demand (gram per cubic metre)	15
Total suspended solids (gram per cubic metre)	15
Total nitrogen (gram per cubic metre)	15
Escherichia coli (colony forming units per 100 millilitre)	10
	Mean value
Escherichia coli (colony forming units per 100 millilitre)	1
	Rolling 12 month 75 percentile not to exceed
Total phosphorous (gram per cubic metre)	10

9. The distance to any property boundary from any part of the treatment and disposal system shall be at least 1.5 metres.
10. No ponding or surface run-off of effluent shall occur as a result of the exercise of this consent.
11. There shall be no odour emission resulting from the treatment and disposal system that is offensive or objectionable to such an extent that it has an adverse effect on the environment beyond the boundary of the property on which the consent is exercised.
12. There shall be no vehicle access over any part of the land disposal area.
13. This permit does not authorise the discharge of sludge to land or water.
14. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent, for the purpose of:
- Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - Requiring the Consent Holder to adopt the best practicable option, in order to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent. Best practicable option includes, but is not limited to, connecting to a reticulated community sewerage scheme, should such an option become available to the Consent Holder.



15. If the Consent Holder:

- (a) Discovers koiwi tangata (human skeletal remains), waahi taoka (resources of importance), waahi tapu (places or features of special significance) or other Maori artefact material, the Consent Holder shall without delay:
- (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police.
 - (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
- (i) Stop work within the immediate vicinity of the discovery or disturbance.
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993.
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

16. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to land

for the purpose of stockpiling raw materials for use in cement manufacture

for a term of 35 years

Location of activity: An area of approximately 0.5 square kilometres, adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago:

Legal description of land at point of discharge: Pt Lot 12 DP 195; Lot 1 DP 8498; Secs 61-62 Blk III Oamaru SD; Lots 1-4 DP 195; Pt Secs 1-2 Sec 30 Blk III Oamaru SD, Pt Sec 2 Sec 33 Block III Oamaru SD

Map reference: Area bounded by:

NZMS 260 J41:437-697 (north)
 NZMS 260 J41:442-695 (north-east)
 NZMS 260 J41:444-683 (south-east)
 NZMS 260 J41:437-690 (south west)
 NZMS 260 J41:434-695 (north-west)

Conditions:

1. This consent shall be exercised in accordance with the application for resource consent dated 21 February 2007 and all supporting documents (which are deemed to be incorporated in, and form part of this consent).
2. Raw materials as authorised under this consent include:
 - (a) Limestone;
 - (b) Siltstone;
 - (c) Tuff;
 - (d) Gypsum;
 - (e) Silica sand;
 - (f) Iron corrective; and
 - (g) Other materials required for the production of cement.
3. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:



- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
- (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.



Consent No: 2007.181

LAND USE CONSENT

Pursuant to Section 104A of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To construct three bores for the purpose of taking groundwater
for an unlimited term

Location of activity: An area of approximately 0.5 square kilometres, adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

Legal description of land: Pt Lot 12 DP 195; Lot 1 DP 8498; Secs 61-62 Blk III Oamaru SD; Lots 1-4 DP 195; Pt Secs 1-2 Sec 30 Blk III Oamaru SD, Pt Sec 2 Sec 33 Block III Oamaru SD.

Map reference: Development Area bounded by:

NZMS 260 J41:437-897 (north)
NZMS 260 J41:442-895 (north-east)
NZMS 260 J41:444-883 (south-east)
NZMS 260 J41:437-890 (south west)
NZMS 260 J41:434-895 (north-west)

Conditions:

1. The bores shall be generally located as shown in the plan attached as Appendix 1 to this consent.
2. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under section 125 of the Resource Management Act 1991. The consent shall attach to the land to which it relates.
3. Within two weeks after completion of the bore construction, the Consent Holder shall forward the following information to the Consent Authority:
 - (a) A fully completed bore log form; and
 - (b) Copies of the results of any pumping tests carried out.
4. Copies of the results of any water quality analyses performed on the groundwater shall be forwarded to the Consent Authority within two weeks of the analysis being undertaken.



6. The bore head casing and reticulation shall be suitably constructed and sealed to avoid ingress of surface water and other foreign matter.
7. The bore integrity shall be maintained at all times unless abandoned. If the bore is abandoned, it shall be appropriately sealed/grouted and backfilled to prevent contaminants from entering the bore at any level.
8. There shall be adequate facility and access for future vertical lowering of a 20 millimetre diameter electric plumb bob for the purpose of measuring water level, or a facility which allows pressure readings.
9. There shall be adequate facility and access for future water quality sampling such as a hand operated tap/valve that is sourced from the direct pump outlet, before the reticulation encounters pressure tanks/reservoir/treatment plant. Where there is reticulation back pressure at the bore head, a one way valve shall be fitted for maximum efficiency and in that case, the water sampling point shall be on the bore pump side of the one way valve.

Notes to Consent Holder

If there is a discharge of contaminants, including human sewage, onto land within 50 metres of a bore used to supply water for domestic purposes or drinking water for livestock, a resource consent may be required for the discharge under the Regional Plan: Water for Otago.

If there is a discharge of contaminants, including contaminants from offal pits, farm landfills, silage production and greenwaste landfills, onto land within 100 metres of a bore used to supply water for domestic purposes or drinking water for livestock, a resource consent may be required for the discharge under the Regional Plan: Waste.



Appendix 1: Location of the Proposed Bores



Approximate Location of Bore Field: NZMS 260 J41:436-693



Consent No: 2007.182

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holdim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take and use groundwater

for the purpose of constructing and operating a cement manufacturing plant and associated facilities

for a term of 10 years

Location of point of abstraction: Adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago:

Legal description of land at point of abstraction: Pt Lot 12 DP 195

Map reference of point of abstraction:

NZMS 260 J41:437-692

NZMS 260 J41:437-691

NZMS 260 J41:436-692

Legal description of land where water is to be used:

Area bounded by:

NZMS 260 J41:437-697 (north)

NZMS 260 J41:442-695 (north-east)

NZMS 260 J41:444-683 (south-east)

NZMS 260 J41:437-690 (south west)

NZMS 260 J41:434-695 (north-west)

Conditions:

1. The rate of abstraction shall not exceed:

- (a) 6 litres per second;
- (b) 480 cubic metres per day;
- (c) 13,800 cubic metres per month;
- (d) 130,000 cubic metres per year.

2. (a) The Consent Holder shall install a water meter to record the water take, within an error accuracy range of +/- 2% over the meter's nominal flow range, and a datalogger with at least 12 months data storage to record the rate and volume of take, and the date and time this water was taken. All practicable steps shall be taken to ensure that the meter's nominal flow range coincides with required pumping rate(s). An error accuracy



of +/- 5% shall apply to meters when pumping rates are below the nominal flow range.)

- (b) The datalogger shall record the date and time of each increment of 1,000 litres of water.
- (c) The installation and maintenance of the water meter and datalogger shall be performed in accordance with manufacturer's specifications and for the water meter only, to New Zealand Quality Standard ISO 4064.
- (d) The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it, and be of a length that is at least 15 times the diameter of the pipe. The water meter shall be installed at least 10 times the diameter of the pipe from the pump and at least 5 times the diameter of the pipe from the diversion of any water.
- (e) The Consent Holder shall ensure the full operation of the water meter and datalogger at all times during the exercise of this consent. All malfunctions of the water meter and/or datalogger during the exercise of this consent shall be reported to the Consent Authority within 48 hours of observation and appropriate repairs shall be performed as soon as is practicable following the observation of malfunction.
- (f) The installation of the water meter and datalogger shall be completed to full and accurate operation prior to the exercise of this consent. The Consent Holder shall forward a copy of the installation certificate to the Consent Authority within one month of installing the water meter and associated devices.
- (g) The water meter and datalogger must be serviced by a suitably qualified operator annually. Receipts of service shall be made available to the Consent Authority by 1 September each year, or upon request.
- (h) The Consent Holder shall provide records from the datalogger to the Consent Authority by 1 September and 1 April each year and at any other time on request. Data shall be available electronically, giving date, time and volume, via a datalogger approved by the Consent Authority.

Note: The water meter and datalogger should be safely accessible by the Consent Authority and its contractors at all times.

- 3. Copies of the results of any water quality analyses performed on the groundwater shall be forwarded to the Consent Authority within two weeks of the analysis being undertaken.
- 4. In consultation with the Consent Authority the applicant shall install four monitoring bores in the general north-west, north-east, south-west and south-east areas relative to the point of take, surrounding the whole site (including tuff and limestone quarries), for the purpose of monitoring the cumulative and long-term impact of the quarries, and plant water supply abstraction, on groundwater levels in the Waiareka Aquifer.
 - (a) The four bores should be drilled to a similar relative level as the production bores (depth dependent on topography and geology).
 - (b) Static water levels in the monitoring bores shall be monitored to an accuracy of 0.01 metre and at a frequency of at least daily.
 - (c) Monitoring shall be carried out by the Consent Holder for at least six months prior to exercise of the consent.
 - (d) Water level data shall be supplied to the Consent Authority electronically by 1 September and 1 April each year, and at any other time on request.



Data shall include date and time of measurement and water level in meters above mean sea level.

- (e) The water level data (hydrograph) of all four bores shall be analysed by a suitably qualified hydro-geologist working for the Consent Holder and a report on the analysis approved by the Consent Authority every two years by 1 September.
5. The permit shall be exercised as directed by the Consent Authority or any Water Allocation Committee established by the Consent Authority which operates in the catchment.
6. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent for the purpose of imposing/revising aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels
7. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
- (a) Adjusting the consented rate or volume of water under Condition 1, should monitoring under Condition 2 or future changes in water use indicate that the consented rate or volume is not able to be fully utilised; or
 - (b) Adjusting the consented rate or volume of water under Condition 1, should monitoring under condition 4 indicate that long-term groundwater levels are declining at an unsustainable rate.
 - (c) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (d) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (e) Adjusting or altering the method of water take data recording and transmission; or
 - (f) Ensuring the water meter and datalogger installed and operated under Condition 2 are consistent with any "Code of Practice" for Water Metering developed by the Consent Authority.
8. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.183

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take groundwater

for the purpose of site dewatering to enable the construction of a cement plant

for a term of 35 years

Location of activity: An area of approximately 0.5 square kilometres, adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

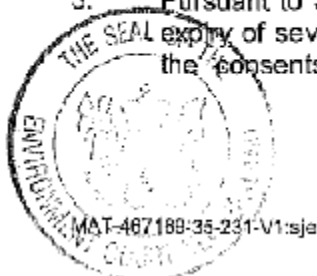
Legal description of land: Pt Lot 12 DP 195; Lot 1 DP 8498; Secs 61-62 Blk III Oamaru SD; Lots 1-4 DP 195; Pt Secs 1-2 Sec 30 Blk III Oamaru SD, Pt Sec 2 Sec 33 Block III Oamaru SD

Map reference: Development Area bounded by:

NZMS 260 J41:437-697 (north)
 NZMS 260 J41:442-695 (north-east)
 NZMS 260 J41:444-683 (south-east)
 NZMS 260 J41:437-690 (south west)
 NZMS 260 J41:434-695 (north-west)

Conditions:

1. This consent shall be exercised in accordance with the application for resource consent dated 21 February 2007 and all supporting documents (which are deemed to be incorporated in, and form part of this consent).
2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
3. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon



application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take and use water as supplementary allocation from a stormwater collection drain for the purpose of constructing and operating a cement plant for a term of 35 years

Location of point of abstraction: Two sedimentation ponds, adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

Legal description of land:

Upper Holding Pond: Pt Lot 12, DP 195

Lower Holding Pond: Pt Lot 12, DP 195

Map reference of point of abstraction:

Upper Holding Pond: NZMS 260 J41:438-693

Lower Holding Pond: NZMS 260 J41:436-694

Legal description of land where water is to be used: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Conditions:

1. This consent shall be exercised substantially in accordance with the application for resource consent dated 21 February 2007 including the supporting documents and submitted by the Consent Holder and subsequent correspondence in support of the application for consent, except to the extent that any condition in this consent conflicts with such material. If there is an inconsistency the conditions and terms of this consent shall prevail.
2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of:
 - (a) Any material change in circumstance (including, but without limitation, changes in, or expansion, or cessation of the manufacturing activities to which the consent relates);
 - Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or



(c) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

3. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater and drainage water to water

for the purpose of constructing and operating a cement manufacturing plant and associated facilities

for a term of 35 years

Location of activity: Adjacent to the Weston Ngapara Road, approximately 2 kilometres north-west of Weston, North Otago.

Legal description of land: Pt Lot 12, DP 195

Map reference: NZMS 260 J41:434-695

Conditions:

1. This consent shall be exercised substantially in accordance with the application for resource consent dated 21 February 2007 including the supporting documents and submitted by the Consent Holder and subsequent correspondence in support of the application for consent.
2. The exercise of this consent shall not give rise to a conspicuous adverse change in the colour or clarity after reasonable mixing of the watercourses downstream of the discharge point.
3. No water from the quarry site shall be discharged to the natural waters without first passing through the water management and treatment system.
4. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - Adjusting or altering the method of water take data recording and transmission.



5. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge overburden to land

for the purpose of permanent storage of overburden resulting from the construction and operation of a limestone-siltstone quarry and tuff quarry

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Daed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Development Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:446-700 (south-east)
 NZMS 260 J41:436-699 (south)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:

1. The activity shall be carried out in accordance with the application for resource consent submitted to Council on 21 February 2007, and documents entitled "Preliminary Slope Stability for Assessment - Holcim Cement Supply Options Project North Otago" and "Geological Modelling and Quarry Pit Planning for Consent Applications Holcim Cement Supply Options Project North Otago, New Zealand".
2. This activity shall be carried out so as to ensure that compliance with conditions of Consents 2007.187, 2007.189 and 2007.191 are not compromised.

3. The Consent Holder shall retain suitably qualified and experienced person(s) to design and supervise the development, construction and operation of the overburden disposal areas. All disposal areas shall be in accordance with accepted engineering practice and overburden management processes shall be



in accordance with accepted geotechnical, material handling and geochemical management practices.

4. Prior to any deposition of overburden an inspection of the disposal area foundation shall be undertaken by a suitable qualified person(s) and a copy of the inspection report provided to the Consent Authority.
5. The Consent Holder shall keep records and survey the size and location of all foundation preparation, and drainage installation for overburden sites, and provide these details to the Consent Authority on an annual basis.
6. The Consent Holder shall report to the Consent Authority on an annual basis, the quantity of overburden disposed of at the site.
7. The Consent Holder shall keep records and estimate the size and location of overburden sites on a monthly basis.
8. At six monthly intervals following the commencement of this consent the Consent Holder shall conduct groundwater quality monitoring. A representative sample shall be obtained from each of the on-site groundwater monitoring bores required to be installed under Conditions 3 and 4 of Consent 2007.192.
 - (a) The relative water level in each bore shall be measured and recorded prior to the collection of each groundwater sample.
 - (b) Groundwater sampling procedures shall be in accordance with "A National Protocol for State of the Environment Groundwater Sampling in New Zealand, Ministry for the Environment December 2006".
 - (c) To avoid cross-contamination between groundwater bores, exclusive water sampling devices shall be used in each bore.
 - (d) For all other field equipment used between groundwater bores, appropriate decontamination measures shall be undertaken to avoid cross-contamination.
9. Water sampled under Condition 8, shall be tested for the following parameters:
 - (a) Total Recoverable Zinc
 - (b) Total Recoverable Copper
 - (c) Total Recoverable Nickel
 - (d) Total Recoverable Chromium
 - (e) Total Recoverable Cadmium
 - (f) Total Recoverable Lead
 - (g) Total Recoverable Aluminium
 - (h) Total Recoverable Arsenic
 - (i) pH
10. All sampling and analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority.

Within 2 weeks of receiving results of monitoring undertaken under Conditions 8, 9 and 10 of this consent, the applicant shall forward a copy to the Consent Authority.



12. Should sampling undertaken under Conditions 8, 9 and 10 of this consent indicate that levels of parameters listed in Condition 9 have increased by 50% compared to background levels as a result of the Consent Holders activity, they should undertake an investigation into the cause, and then prepare and implement an appropriate mitigation plan in consultation with the Consent Authority.
13. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report may be undertaken in conjunction with condition 11 of Consent 2007.189 and shall include as a minimum:
- (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects; and
 - (b) A comparison of data with previously collected data in order to identify any emerging trends; and
 - (c) Copies of the laboratory analytical results for any sampling undertaken; and
 - (d) Any remedial actions undertaken at the site;
 - (e) Any further remedial actions recommended;
 - (f) A summary of maintenance activities during the monitoring period; and
 - (g) Meteorological information during the monitoring period including temperature and daily rainfall.
14. On completion of the works a suitable qualified individual shall supply the Consent Authority a Statement of Opinion (Final Geotechnical and Geochemical Completion Report) as to the compliance of the works to the specifications.
15. The Consent Holder shall prepare a management plan for the site that shall include (but not be limited to) the following:
- (a) Confirmation of design criteria.
 - (b) Final landform design contours.
 - (c) Design elements required to manage slope stability including sub soil drainage and structure fill elements.
 - (d) Detail of geochemical design elements.
 - (e) Description of stage construction activities.
 - (f) Outline of proposed construction sequence including staged:
 - (i) Access road development;
 - (ii) Excavation and management of topsoil;
 - (iii) Preparation of foundation;
 - (iv) Fill placement;
 - (v) Sediment control measures; and
 - (vi) Monitoring of sediment discharges.
 - (g) Construction programme (subject to review).
 - (h) Contingency planning.
 - (i) Reporting.

The Consent Holder shall review and update the management plan on a regular basis (as required), and shall ensure that the Consent Authority has a copy of the most up to date management plan.



17. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

18. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: **Holcim (New Zealand) Limited**

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to land in circumstances where they may enter water

for the purpose of stockpiling limestone, siltstone and tuff.

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 81 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Development Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:448-700 (south-east)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:

1. This consent shall be exercised in accordance with the application for resource consent dated 21 February 2007 and all supporting documents (which are deemed to be incorporated in, and form part of this consent).
2. This activity shall be carried out so as to ensure that compliance with conditions of Consents 2007.185, 2007.187, 2007.189 and 2007.191 are not compromised.
3. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:

(a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the



exercise of the consent and which it is appropriate to deal with at a later stage; or

(b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

4. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.187

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to air

for the purpose of developing and operating a limestone-siltstone quarry and tuff quarry.

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 38 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Development Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:446-700 (south-east)
 NZMS 260 J41:436-699 (south)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:**General**

1. The discharges to air shall be from the extraction, crushing, screening and transportation of limestone, siltstone and tuff and the construction of the limestone, siltstone and tuff quarries.
2. The Consent Holder shall construct and operate the quarries and associated processes generally in accordance with the documentation provided in the application dated 21 February 2007 and any supplementary information provided subsequent to that application.



3. There shall be no emission of dust resulting from the Consent Holder's activities that is offensive or objectionable at or beyond the boundary of the Consent Holder's property.
4. The Consent Holder shall minimise any adverse effect on the environment resulting from the discharge of dust. The methods used shall include but not be limited to the following:
 - (a) Revegetating bare areas, including stockpiles as soon as practicable;
 - (b) Minimising the areas of disturbed ground;
 - (c) Carrying out land stripping and land restoration operations at times of least vulnerability to neighbours;
 - (d) Taking wind conditions into account in planning and carrying out work to minimise dust dispersion;
 - (e) Limiting the height and slope of stockpiles;
 - (f) Using water and dust suppressants on all disturbed surfaces including roads and stockpiles when required;
 - (g) Applying a speed restriction on all internal roads; and
 - (h) Resurfacing of roads and yard areas with clean aggregate free of fine material when required.

Monitoring

5. The Consent Holder shall monitor dust deposition rates at 30 day intervals at three quarry sites as shown on the figure attached to this consent as Appendix 1, in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site.
6. The Consent Holder shall monitor background dust deposition rates at 30 day intervals at two sites in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site. The background monitors shall be located in Ngapara and Weston at locations that are sufficiently removed from the quarry activities so that they will not be affected by emissions from the quarry. This background deposition monitoring is also required by Consents 2007.178 and 2007.200.
7. If any insoluble dust deposition measurements exceed $4\text{gm/m}^2/30$ days above dust levels measured at the background sites during the same monitoring period, the Consent Holder shall undertake an immediate review of dust mitigation methods, unless it can be demonstrated that sources other than the mine have contributed the majority of the deposition. This review shall establish the cause of the high results and recommend measures to improve the level of dust mitigation. A report outlining the findings of this review shall be provided to the Consent Authority within 1 month of the high result being received.



Environmental Management Plan²

8. The Consent Holder shall prepare and implement an Environmental Management Plan that includes dust management methods. The environmental management plan shall be prepared and approved by the Consent Authority three months prior to the exercise of this consent. The environmental management plan shall be reviewed annually thereafter. The matters to be included in the environmental management plan shall include but not be limited to the following:
- (a) A description of the dust sources on site;
 - (b) The methods to be used for controlling the dust at each source during construction and operation of the quarry;
 - (c) Any significant changes/alternations throughout the life of the project that may result in changes to the quantity and nature of dust and other discharges;
 - (d) The additional methods to be used when quarry activities take place within 300 metres of a sensitive location such as a residential dwelling or commercial premise;
 - (e) A description of the programme for rehabilitation and revegetation of the site;
 - (f) A description of the dust monitoring programme and how it is to be carried out and the methods to be used;
 - (g) A description of the reporting requirements and how they are to be carried out;
 - (h) A method for recording and responding to complaints from the public. Training of employees and contractors to make them aware of the requirements of the environmental management plan; and
 - (i) Assignment of responsibility for reviewing and implementing the environmental management plan.

Reporting Requirements

9. The Consent Holder shall submit the results of all dust monitoring to the Consent Authority in electronic and written form by no later than the last day of each calendar month, incorporating the results of all monitoring received in the previous month, undertaken in accordance with the conditions of this consent.
10. The Consent Holder shall produce an annual summary report by 31 March each year following the commencement of this consent, on the dust monitoring required by the conditions of this consent for the previous year. The report shall include an analysis of the monitoring data in relation to compliance with trigger limits taking into consideration quarry production and meteorological conditions during the monitoring period. The report shall also include an analysis of the efficacy of the dust mitigation measures used by the Consent Holder and make recommendations for any changes that are considered necessary.



² Note: This Environmental Management Plan could be consolidated with all other Environmental Management Plans required by Regional Consents, for each site, provided that all matters required under each plan are addressed.

Review Conditions

11. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the anniversary of the commencement of this consent, and every year following that period, for the purpose of:
- (a) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
 - (b) Determining whether the conditions of this consent are adequate to deal with any adverse effects on the environment, which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent;
 - (c) Determining whether the conditions of this consent are appropriate based on the results of the monitoring and reviews undertaken pursuant to Conditions 6, 7 and 10 of this consent.
- 11A. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the receipt of the ambient monitoring results required under Conditions 5 to 7, for the purpose of assessing the need to require additional dust monitoring and reporting if the results presented in the report indicate that the ambient levels of contaminants are exceeded in the following situation:
- (a) More than one 30 day insoluble dust deposition measurement taken over a calendar year as required by monitoring Condition 5 exceeds 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period as required by Condition 6 that can be attributed to the Consent Holder's activities.
12. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Appendix 1: Location of deposition monitors as required under Condition 5 of this consent



Consent No: 2007.188

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge treated wastewater to land for the purpose of disposal of wastewater from staff facilities at the Weston Quarries

for a term of 35 years

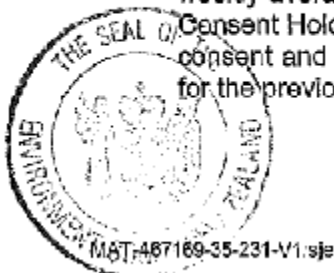
East of Coal Pit Road, approximately 3 kilometres north-west of Weston North Otago.

Legal description of land at point of discharge: Lot 1, DP 1907

Map Reference: NZMS 260 J41:442-715

Conditions:

1. The discharge shall only be wastewater from staff facilities, as described in the consent application submitted to the Consent Authority on 21 February 2007.
2. (a) The treatment and disposal system shall be constructed and installed in accordance with the details and plans supplied with the consent application submitted to the Consent Authority on 21 February 2007, and prior to installation the Consent Holder shall submit to the Consent Authority an engineered design that takes into account the need to ensure appropriate percolation, loading and monitoring for the system.
(b) Prior to commissioning the treatment and disposal system of this consent, the Consent Holder shall supply the Consent Authority with a Producer Statement or a Certificate of Compliance, certifying that the treatment and disposal system has been installed in accordance with condition 2(a).
3. The volume of effluent discharged shall not exceed 2,200 litres per day and shall be evenly distributed over the entire disposal field (except those parts of the field being rested), such that the maximum application rate does not exceed 5 millimetres per day in any part of the disposal field. For the purpose of determining compliance with this condition, the daily volume shall be based on a weekly average, measured in accordance with condition 4.
4. The Consent Holder shall install a flow meter on the outlet pipe from the treatment system and continually measure and record the daily (based on a weekly average) volume of effluent being discharged to the disposal field. The Consent Holder shall, beginning 13 months after the first date of exercise of this consent and every 12 months thereafter, and upon request, forward the record for the previous 12-month period to the Consent Authority.



5. Within three months of the commencement of this consent, the Consent Holder shall prepare and forward to the Consent Authority an Operations and Management Manual for the treatment and disposal system, to ensure its effective and efficient operation at all times. The system shall be operated in accordance with this manual, which may be updated as appropriate. The manual shall include, but not be limited to:
- (a) A brief description of the treatment system, including a site map indicating the location of the treatment system, discharge location and monitoring sites;
 - (b) Key operational matters;
 - (c) Monitoring and reporting procedures, including but not limited to:
 - (i) Contingency plan for system malfunction and breakdown;
 - (ii) Contingency plan for maintaining effluent quality during periods of peak flows;
 - (d) Population numbers that the system is designed to accommodate for;
 - (e) A complaints and system malfunctions recording system; and
 - (f) Details of the measures to be taken to meet the quality of discharge set out in Condition 8.

The record of complaints and malfunctions shall be submitted to the Consent Authority within two weeks after any complaint or malfunction occurring, together with the details of the remedial measures taken. At all times, the Consent Holder shall ensure that the Consent Authority has a copy of the up to date Operations and Management Manual.

6. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Consent Authority. All analysis carried out in connection with the consent shall be performed by a laboratory that meets ISO 17025 standards, or otherwise as specifically approved by the Consent Authority.
7. (a) Beginning three months after the first date of exercise of this consent, the Consent Holder shall collect quarterly, representative samples of the final effluent, prior to discharge to the disposal field.
- (b) After compliance with condition 8 has been verified for eight consecutive sampling occasions, the Consent Holder shall at least twice a year, and approximately six months apart, collect representative samples of the final effluent, prior to discharge to the disposal field.
- (c) Each sample collected under this condition shall be analysed for:
 - (i) Five day biochemical oxygen demand (BOD5);
 - (ii) Total suspended solids;
 - (iii) Total nitrogen;
 - (iv) Escherichia coli.
- (d) The analytical sampling results shall be reported in writing to the Consent Authority within 14 days of the Consent Holder receiving the results.

8. Beginning three months after the first date of exercise of this consent, final effluent discharged to the disposal field shall comply with the following criteria:



Parameter	Maximum value
Five day biochemical oxygen demand (gram per cubic metre)	30
Total suspended solids (gram per cubic metre)	30
Total nitrogen (gram per cubic metre)	30
	Rolling 75 percentile not to exceed
Total phosphorous (gram per cubic metre)	15
Escherichia coli (colony forming units per 100 millilitre)	10,000

9. The distance to any property boundary from any part of the treatment and disposal system shall be at least 1.5 metres.
10. No ponding or surface run-off of effluent shall occur as a result of the exercise of this consent.
11. There shall be no odour emission resulting from the treatment and disposal system that is offensive or objectionable to such an extent that it has an adverse effect on the environment beyond the boundary of the property on which the consent is exercised.
12. There shall be no vehicle access over any part of the land disposal area.
13. This permit does not authorise the discharge of sludge to land or water.
14. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent, for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option, in order to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent. Best practicable option includes, but is not limited to, connecting to a reticulated community sewerage scheme, should such an option become available to the Consent Holder.
15. If the Consent Holder:
 - (a) Discovers koiwi tangata (human skeletal remains), waahi taoka (resources of importance), waahi tapu (places or features of special significance) or other Maori artefact material, the Consent Holder shall without delay:



- (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police.
- (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance;
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993;
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

16. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No. 2007.189

DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater to water

for the purpose of constructing and operating a limestone-siltstone quarry and tuff quarry.

for a term of 35 years

Location of activity:

Discharge Point A: East of Coal Pit Road, approximately 1.7 kilometres west-north-west of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Discharge Point B: West of Coal Pit Road, approximately 500 metres north of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Legal description of land:

Discharge Point A: Pt Sect 40, Block III Oamaru Survey District

Discharge Point B: Lot 3, Deed 223

Map reference:

Discharge Point A: NZMS 260 J41:447-714

Discharge Point B: NZMS 260 J41:428-716

Conditions:**General**

1. The discharge shall be only treated stormwater as described in the consent application received by the Consent Authority on 21 February 2007.
2. The treatment and disposal system shall be constructed and installed substantially in accordance with the details and plans supplied with the consent application submitted to the Consent Authority dated 21 February 2007.
3. No water from the quarry site shall be discharged to the natural waters without first passing through the water management and treatment system.



Specific

4. The Consent Holder shall prepare a stormwater management plan. A copy of this stormwater management plan shall be submitted to the Consent Authority prior to exercising this consent. This plan shall be reviewed and updated as a minimum once every five years. The revised plan shall be forwarded to the Consent Authority. At minimum this stormwater management plan shall include:
- (a) Description of the water management system;
 - (b) Design criteria including exceedance criteria;
 - (c) Design information on volumes, treatment efficiencies and design water levels;
 - (e) Design drawings for water management infrastructure;
 - (f) Locations of discharges;
 - (g) Monitoring plan describing the sampling and analytical methodology (to be based on best practice) and including the location, frequency and parameters to be measured; and
 - (h) Operation and maintenance plans including:
 - (i) Operator instructions for the water management systems
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructures and consent non-compliance.
5. The discharge of contaminants authorised by this consent shall not cause water quality within Waiareka Creek downstream of its confluence with the unnamed tributary to exceed the following limits:

Parameters	Trigger Levels
pH	6.5-9
Total Suspended Solids	An increase by more than 10 milligrams per litre between the downstream and upstream samples, whenever the concentration at the upstream point is less than 20 milligrams per litre; or by more than 50% if the concentration at the upstream point is more than 20 milligrams per litre. This limit may be exceeded for no more than 1 hour following the start of a rainfall event. This limit may only be met for a maximum period of 24 hours during any one rainfall event.
Turbidity	An increase by more than 10 Nephelometric Turbidity Units between the downstream and upstream samples, whenever the sample at the upstream point is less than 20 Nephelometric Turbidity Units; or by more than 50% if the sample at the upstream point is more than 20 Nephelometric Turbidity Units. This limit may be exceeded for no more than 1 hour following the start of a rainfall event. This limit may only be met for a maximum period of 24 hours during any one rainfall event.
Total Recoverable Aluminium	0.087



Dissolved arsenic	0.15
Dissolved cadmium	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved chromium	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved copper	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved mercury	0.00065
Dissolved nickel	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved lead	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved zinc	Hardness adjusted criteria based on Equation 1 and constants in Table 2

Note: Units g/m³ unless otherwise stated.

Equation 1:

$$\text{Criteria} = (\exp(m_c [\ln(\text{hardness})] + b_c) \times (\text{CF})) / 1000$$

Table 2: Constants for hardness adjusted criteria

Constituent	m _c	b _c	CF
Dissolved cadmium	0.7409	-4.719	1.101872-[ln(hardness)(0.041838)]
Dissolved chromium	0.8190	0.6848	0.860
Dissolved copper	0.8545	-1.702	0.960
Dissolved nickel	0.8460	0.0584	0.997
Dissolved lead	1.273	-4.705	1.46203-[ln(hardness)(0.145712)]
Dissolved zinc	0.8473	0.884	0.986

6. The Consent Holder shall ensure, through the use of outfall devices, that the dissolved oxygen level of any flow entering a stream from a stormwater treatment device is of such a level that once adequate mixing has taken place the oxygen level of the stream is not lowered.
7. The Consent Holder shall ensure that outfalls are of such location, design and performance as to minimise erosion of the waterway and surrounding area.

Monitoring

8. At quarterly intervals the Consent Holder shall collect a representative sample of:

- (a) Stormwater discharging into the unnamed tributary of Waiareka Creek from the Limestone-siltstone quarry sediment pond (S1 Appendix 1);
- (b) stormwater discharging into the unnamed tributary of Waiareka Creek from the Tuff Quarry Sediment Pond (S2 Appendix 1);



- (c) Waiareka Creek, distance 30m upstream of its confluence with the unnamed tributary (S3 Appendix 1);
- (d) Waiareka Creek, immediately downstream of its confluence with the unnamed tributary (S4 Appendix 1).

9. The samples collected under Condition 8 shall be analysed for:

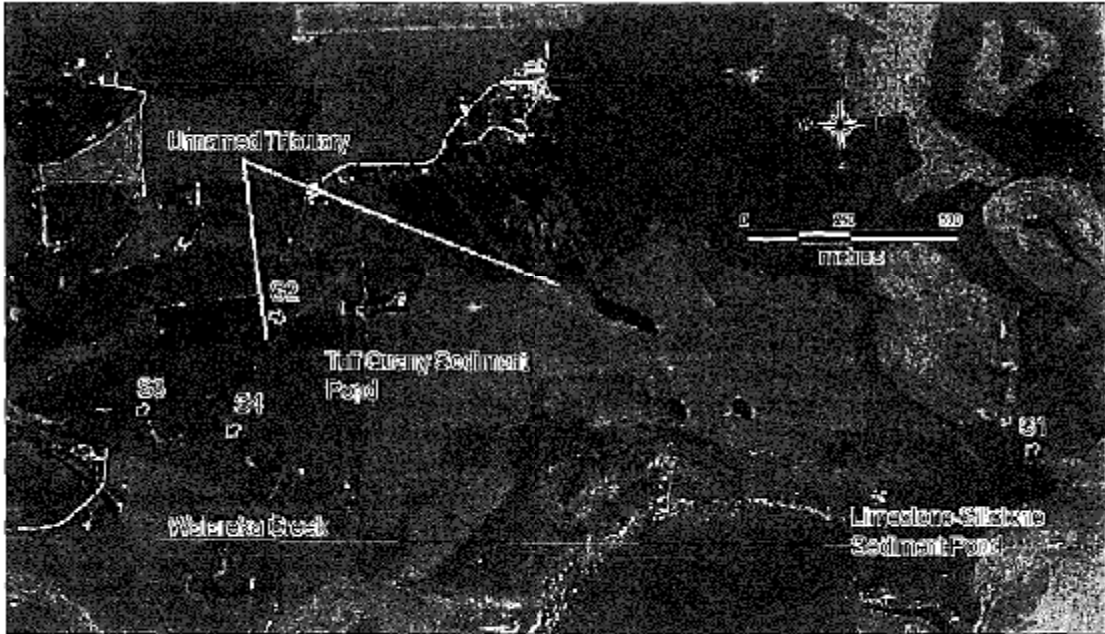
- (a) pH.
- (b) Suspended solids.
- (c) Alkalinity.
- (d) Hardness.
- (e) Trace metals including:
 - (i) Total Recoverable and dissolved Aluminium
 - (ii) Dissolved Arsenic
 - (iii) Dissolved Cadmium
 - (iv) Dissolved Chromium
 - (v) Dissolved Copper
 - (vi) Dissolved Mercury
 - (vii) Dissolved Nickel
 - (viii) Dissolved Lead
 - (ix) Dissolved Zinc

Should the water quality be within the limits for discharges given in Condition 5 for more than two years. Then the monitoring can be reduced to pH and suspended solids at the sediment ponds. Provided that the quality continues to meet the limits given in Condition 5 and that the activity or intensity of activity at the quarry do not change significantly.

- 10. All sampling and analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority.
- 11. Analytical results from sampling required under this consent shall be forwarded within one month of sampling to the Consent Authority. The results to be provided shall include a copy of the original laboratory report and also be in electronic format (excel spreadsheet (.xls) or comma separated value (csv) format).
- 12. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report may be undertaken in conjunction with Condition 13 of Consent 2007.185 and shall include as a minimum:
 - (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects;
 - (b) A comparison of data with previously collected data in order to identify any emerging trends;
 - (d) copies of the laboratory analytical results for any sampling undertaken;
 - (e) Any remedial actions undertaken at the site;
 - (f) Any further remedial actions recommended;
 Summary of maintenance activities during the monitoring period; and Meteorological information during the monitoring period including temperature and daily rainfall.



Appendix 1: Weston Quarries Surface Water Monitoring Locations.



13. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 24 hours.

Maintenance

14. The Consent Holder shall have an operation and maintenance manual for the stormwater management system developed by a suitably qualified individual. A copy of this operation and maintenance manual shall be submitted to the Consent Authority prior to exercising this consent. At minimum this operation and maintenance manual shall include:
- (i) Operator instructions for the water management systems and equipment;
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken;
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructure and consent non-compliance.
15. The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report.

Review Condition

16. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
17. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to water

for the purpose of undertaking instream works associated with quarrying

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9282; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 38 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:446-700 (south-east)
 NZMS 260 J41:436-699 (south)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:

1. This permit shall be exercised in conjunction with land use consents 2007.196 2007.197, 2007.193 and 2007.194.
2. The discharge authorised by this permit shall only be silt and sediment resulting from instream works and cement and cement products from structure construction, as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and additional information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
3. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all discharges authorised by this consent, to the Compliance Unit of the Consent Authority at least 10 working days before the discharge commences. As a minimum, the discharge plan shall include the following information:



- (a) A map showing the specific location of each discharge;
 - (b) The timing and duration for each discharge;
 - (c) The maximum rate of each discharge;
 - (d) The name of the receiving watercourse;
 - (e) The erosion and sediment control measures for each discharge.
4. The Consent Holder shall take all practicable steps to minimise the release of sediment into the water while disturbing the bed of the watercourse.
5. The Consent Holder shall ensure that all practical measures are taken to prevent cement and cement products, from entering flowing water. This shall include:
- (a) Avoiding flowing water come into contact with the concrete until the concrete is firmly set.
 - (b) Using boxing or other similar devices to contain wet cement during construction of the structure.
 - (c) Ensuring that the handling of cement is undertaken in a manner that does not result in spillage into any watercourse.
 - (d) If any concrete is spilled beyond the boxing, pouring of concrete shall stop immediately and all concrete shall be removed from the watercourse.
 - (e) No equipment used in the pouring of concrete shall be washed out on site.
6. No lawful take of water is to be adversely affected as a result of any discharge.
7. The Consent Holder shall ensure that the discharge does not give rise to any significant adverse effect on aquatic life.
8. The exercise of this consent shall not give rise to a conspicuous adverse change in the colour or clarity of the watercourses downstream of the discharge point.
9. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.



Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon

application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge drainage water to water

for the purpose of discharging clean surface runoff diverted around the boundaries of the Limestone-Siltstone Quarry and Tuff Quarry.

for a term of 36 years

Location of activity:

Discharge Point A: East of Coal Pit Road, approximately 1.7 kilometres west-north-west of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Discharge Point B: West of Coal Pit Road, approximately 500 metres north of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Legal description of land:

Discharge Point A: Pt Sect 40, Block III Oamaru Survey District

Discharge Point B: Lot 3, Deed 223

Map reference:

Discharge Point A: NZMS 260 J41:447-714

Discharge Point B: NZMS 260 J41:429-716

Conditions:

1. The discharge shall be only clean water as described in the consent application received by the Consent Authority on 21 February 2007.
2. The clean water drains shall be designed to contain a ten percent annual exceedance probability rain event and be designed with erosion protection if required to prevent erosion.
3. The discharge shall not give rise to any of the following effects in the unnamed tributary:



The production of any conspicuous oil or grease films, scums or foams or floatable or suspended materials; or
 Any conspicuous change in colour or visual clarity; or
 Any erosion at the discharge location.

4. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 48 hours.⁵ The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report as required under Condition 12 of Consent 2007.189

6. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

7. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take groundwater

for the purpose dewatering a Limestone-Siltstone Quarry and Tuff Quarry

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

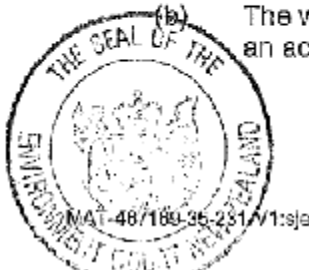
Legal description of point of abstraction: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Development Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:446-700 (south-east)
 NZMS 260 J41:436-699 (south)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:

1. The Consent Holder shall assess and quantify the volume of intercepted perched groundwater which is being abstracted from the limestone-siltstone quarry and tuff quarry every three months through a site inspection and assessment by a suitably qualified individual.
2. In consultation with the Consent Authority the Consent Holder shall install three piezometers in the general north, southwest and southeast areas surrounding the Weston Limestone Quarry Site for the purpose of monitoring the impact of quarry dewatering on the underlying groundwater levels and quality.
 - (a) The three bores should be drilled to a depth at least 5 metres below the water table and screened over at least one metre.
 - (b) The water level data in all three monitoring bores should be measured to an accuracy of 0.01 metre on a weekly basis.



- (c) Monitoring shall be carried out by the Consent Holder for at least six months prior to exercise of the consent.
 - (d) Water level data shall be supplied to the Consent Authority electronically by 1 September and 1 April each year and at any other time on request. Data shall include date and time of measurement and water level in meters above mean sea level.
 - (e) The water level data (hydrograph) of all three bores shall be analysed by a suitably qualified expert working for the Consent Holder and a report on the analysis approved by the Consent Authority every two years by 1 September.
3. In consultation with the Consent Authority the Consent Holder shall install three peizometers in the general northwest, northeast, and south areas surrounding the Weston Tuff Quarry Site for the purpose of monitoring the impact of quarry dewatering on the underlying groundwater levels and quality.
- (a) The three bores should be drilled to a depth at least 5 metres below the water table and screened over at least one metre.
 - (b) The water level data in all three monitoring bores should be measured to an accuracy of 0.01 metre on a weekly basis.
 - (c) Monitoring shall be carried out by the Consent Holder for at least six months prior to exercise of the consent.
 - (d) Water level data shall be supplied to the Consent Authority electronically by 1 September and 1 April each year and at any other time on request. Data shall include date and time of measurement and water level in meters above mean sea level.
 - (e) The water level data (hydrograph) of all three bores shall be analysed by a suitably qualified expert working for the Consent Holder and a report on the analysis approved by the Consent Authority every two years by 1 September.
4. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent for the purpose of imposing/revising aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels.
5. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Adjusting or altering the method of water take data recording and transmission; or
 - (d) Addition of conditions or a mitigation plan should monitoring in Conditions 1, 2 or 3 indicate unforeseen affects.

Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless



the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.193

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To temporarily divert named and unnamed tributaries of Walareka Creek
for the purpose of undertaking instream works associated with quarrying
for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Area bounded by:

NZMS 260 J41:443-717 (north-east)
NZMS 260 J41:450-713 (east)
NZMS 260 J41:446-700 (south-east)
NZMS 260 J41:436-699 (south)
NZMS 260 J41:431-704 (south-west)
NZMS 260 J41:429-718 (north-west)

Conditions:

1. This consent shall be exercised in conjunction with Land Use Consent 2007.196.
2. The diversions shall be undertaken as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and additional information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
3. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.

The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all diversion works authorised by this



consent, to the Consent Authority at least 10 working days before the work commences. As a minimum, the programme of work shall include the following information:

- (a) A map showing the specific location of each diversion;
 - (b) The timing and duration of the proposed works for each diversion;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each diversion channel;
 - (d) An assessment of flow carrying capacity of the watercourse prior to being diverted;
 - (e) An assessment of flow carrying capacity of the diversion channel;
 - (f) A statement as to whether each diversion is permanent or temporary; and
 - (g) The methods used to construction each diversion.
5. The diversion of water from the watercourse shall only occur once the diversion channel and/or pipe has been fully excavated.
 6. When diverting water into the new diversion channel and/or pipe, all reasonable steps shall be taken to ensure that sediment and discolouration of water are kept to a minimum.
 7. The Consent Holder shall undertake all reasonable measures to promote bank stability of the new channel as rapidly as possible.
 8. There shall be no reduction in the surface flow of the watercourse as a result of the diversion.
 9. No lawful take of water shall be adversely affected as a result of the diversion.
 10. The Consent Holder shall ensure the diversion does not cause any flooding, erosion, scouring, land instability or damage of any other person's property. Should such effects occur due to the diversion, the Consent Holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.
 11. Representative photographs shall be taken of the site:
 - (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site,

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

12. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:

Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or



- (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.
13. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.194

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To dam water in Sediment Pond A

for the purpose of operating a sediment pond to treat stormwater from a quarry site.

for a term of 35 years

Location of Activity: East of Coal Pit Road, approximately 1.7 kilometres west-north-west of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Legal description of land: Pt Sect 40, Block III Oamaru Survey District

Map reference: NZMS 260 J41:447-714

Conditions:

1. Water dammed under this consent shall be impounded by the structure authorised under Consent 2007.217.
2. The volume of water stored behind the dam shall be no greater than 4,700 cubic metres.
3. During filling of the reservoir, the Consent Holder shall monitor the reservoir margins for ground subsidence or erosion.
4. The Consent Holder shall ensure that the reservoir and all its appurtenant component and accessory structures are maintained in a safe and stable condition.
5. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of the each anniversary of the commencement of this consent or within three months of receiving monitoring results for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards;



(c) Reviewing the frequency, type or method of reporting.

6. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take and use water as supplementary allocation from an unnamed tributary of Waiareka Creek

for the purpose of dust suppression

for a term of 35 years

Point of Take A: Limestone-siltstone Quarry sediment pond, East of Coal Pit Road, approximately 1.7 kilometres west-north-west of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Point of Take B: Tuff Quarry sediment pond West of Coal Pit Road, approximately 500 metres north of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Legal description of land:

Point of Take A: Pt Sect 40, Block III Oamaru Survey District

Point of Take B: Lot 3, Deed 223

Map reference:

Point of Take A: NZMS 260 J41:447-714

Point of Take B: NZMS 260 J41:429-716

Conditions:

1. This consent shall be exercised substantially in accordance with the application for resource consent dated 21 February 2007 including the supporting documents and submitted by the Consent Holder and subsequent correspondence in support of the application for consent, except to the extent that any condition in this consent conflicts with such material. If there is an inconsistency the conditions and terms of this consent shall prevail.
2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or



- (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Adjusting or altering the method of water take data recording and transmission; or
 - (d) Addition of conditions or a mitigation plan should monitoring in Conditions 2 or 3 of Consent 2007.192 indicate unforeseen affects.
3. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.196

LAND USE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To disturb the bed of named and unnamed tributaries of Waiareka Creek

for the purpose of undertaking instream works associated with quarrying

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9282; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Area bounded by:

NZMS 260 J41:443-717 (north-east)

NZMS 260 J41:450-713 (east)

NZMS 260 J41:446-700 (south-east)

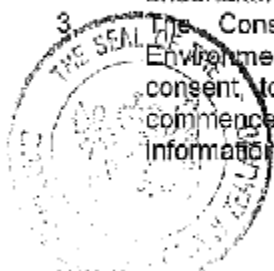
NZMS 260 J41:436-699 (south)

NZMS 260 J41:431-704 (south-west)

NZMS 260 J41:429-718 (north-west)

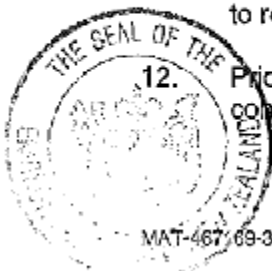
Conditions:

1. The works authorised by this consent shall be undertaken and located as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and additional information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.
3. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all disturbance works authorised by this consent, to the Consent Authority at least 10 working days before the work commences. This program shall include, but not be limited to the following information:



- (a) A map showing the specific location of each bed disturbance area;
 - (b) The timing and duration of the disturbance works;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each bed disturbance area;
 - (d) An assessment of flow carrying capacity of any potentially affected watercourse prior to the disturbance works;
 - (e) An assessment of flow carrying capacity of the watercourse following the disturbance works; and
 - (f) The methods used to control sediment runoff into watercourses including use of control structures, compaction of material and revegetation.
4. Works shall be undertaken as far as practicable, when flows in the watercourses are low.
 5. During the exercise of this consent, the Consent Holder shall ensure that no contaminants other than what is authorised by Discharge Permit 2007.190 enter watercourses. In the event of contamination, the Consent Holder shall undertake remedial action and shall notify the Consent Authority as soon as practical.
 6. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into the watercourses. No refuelling of machinery shall occur within the watercourse.
 7. All machinery shall be water blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from the watercourses. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand recommendations, as stated on its May 2006 fact sheet titled "Don't Spread Didymo". The Consent Holder shall ensure that wash water does not directly discharge into surface water.
 8. The Consent Holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.
 9. The works shall not result in any decrease of the upstream and downstream cross-sectional area of the streambed, as the streambed exists prior to commencement of the works authorised by this consent.
 10. The Consent Holder shall minimise damage to riparian vegetation when exercising this consent.
 11. The Consent Holder shall ensure the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the Consent Holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.

12. Prior to, or immediately following completion of the works authorised by this consent, the Consent Holder shall ensure that all plant, equipment, chemicals,



fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

13. The Consent Holder shall ensure that any damage to the stream banks, including riparian vegetation, be reinstated to a quality at least equivalent to that prior to the works commencing, within one month of completion of the works.
14. Representative photographs shall be taken of the site:
- (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site,

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

15. If the Consent Holder:
- (a) Discovers koiwi tangata (human skeletal remains), or Maori artefact material, the Consent Holder shall without delay:
 - (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police; and
 - (ii) Stop work within the immediate vicinity of the discovery to allow site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation.

Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993; and
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its



intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:

- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
- (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
- (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.

17. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.197

LAND USE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To erect various structures in the bed of named and unnamed tributaries of Waiareka Creek

for the purpose of undertaking instream works associated with quarrying

for a term of 35 years

Location of Activity: An area of approximately 2.9 square kilometres, east of Coal Pit Road, approximately 3 kilometres north-west of Weston, North Otago.

Legal description of land: Lots 3-4 Deed 223; Pt Sec 655R Blk III Oamaru SD; Pt Sec 1 Sec 38 Blk III Oamaru SD; Lot 1 DP 1907; Pt Lot 13 DP 195; Lot 1 DP 9262; Sec 61 Blk III Oamaru SD; Lot 14 DP 195; Pt Sec 1 Sec 36 Blk III Oamaru SD; Sec 2 Sec 36 Blk III Oamaru SD; Pt Sec 1 Sec 37 Blk III Oamaru SD; Pt Sec 2 Sec 39 Blk III Oamaru SD; Pt Sec 1 Sec 40 Blk III Oamaru SD; Pt Sec 2 Sec 40 Blk III Oamaru SD.

Map reference: Area bounded by:

NZMS 260 J41:443-717 (north-east)
 NZMS 260 J41:450-713 (east)
 NZMS 260 J41:446-700 (south-east)
 NZMS 260 J41:436-699 (south)
 NZMS 260 J41:431-704 (south-west)
 NZMS 260 J41:429-718 (north-west)

Conditions:

1. The structures shall be sized, constructed and located as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and addition information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.

3. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all construction works authorised by this consent, to the Consent Authority at least 10 working days before the work



commences. As a minimum, the programme of work shall include the following information:

- (a) A map showing the specific location of each structure to be installed;
 - (b) The timing and duration of the proposed works;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each structure;
 - (d) An assessment of flow carrying capacity of the watercourse prior to following installation of each structure;
 - (e) Identification of secondary flow paths;
 - (f) The methods used to install each structure.
4. The structures shall be constructed and maintained in accordance with good engineering practice.
 5. The Consent Holder shall provide for the safe routing of flood and super-design flows past each structure.
 6. The Consent Holder shall upon request, and at their own cost, provide certification from a suitably qualified and experienced professional engineer that the conditions of this consent are complied with.
 7. No structure shall cause a permanent elevation of pre-existing stream water levels.
 8. The gradient of any culvert must match that of the existing channel invert.
 9. Works shall be undertaken as far as practicable, when flows in the watercourses are low.
 10. During the exercise of this consent, the Consent Holder shall ensure that no contaminants other than what is authorised by Discharge Permit 2007.190 enter watercourses. In the event of contamination, the Consent Holder shall undertake remedial action and shall notify the Consent Authority as soon as practical.
 11. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into the watercourses. No refuelling of machinery shall occur within the watercourse.
 12. All machinery shall be water blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from the watercourses. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Bio security New Zealand recommendations, as stated on its May 2006 fact sheet titled "Don't Spread Didymo". The Consent Holder shall ensure that wash water does not directly discharge into surface water.
 13. All works shall be undertaken, as far as practicable, outside the wet bed of the watercourse.
 14. The Consent Holder shall minimise damage to riparian vegetation when exercising this consent.



15. The Consent Holder shall ensure the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the Consent Holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.
16. Prior to, or immediately following completion of the works authorised by this consent, the Consent Holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.
17. The Consent Holder shall ensure that any damage to the stream banks, including riparian vegetation, be reinstated to a quality at least equivalent to that prior to the works commencing, within one month of completion of the works.
18. Representative photographs shall be taken of the site:
- (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site,

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

19. If the Consent Holder:
- (a) Discovers koiwi tangata (human skeletal remains), or Maori artefact material, the Consent Holder shall without delay:
 - (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust; and in the case of skeletal remains, the New Zealand Police; and
 - (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation.

Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata



whenever, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993; and

- (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

- 20. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.

- 21. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.217

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To erect a dam (known as "Sediment Pond A") in the bed of a tributary of Waiareka Creek.

for the purpose of creating sediment pond to treat stormwater from a quarry site.

for a term of 35 years

Location of Activity: East of Coal Pit Road, approximately 1.7 kilometres west-north-west of the intersection of Weston Ngapara Road and Coal Pit Road, North Otago.

Legal description of land: Pt Sect 40, Block III Oamaru Survey District

Map reference: NZMS 260 J41:447-714

Conditions:

1. The structures shall be sized, constructed and located as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and addition information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall submit details of design prior to exercising this consent along with details of proposed inspection and supervision regime during construction.
3. The dam and its appurtenant structures shall be constructed and maintained in accordance with good engineering practice.
4. The Consent Holder shall have a suitably experienced and qualified professional engineer assess the Potential Impact Classification in accordance with the Building Act regulations, at the time of exercising this consent and at five yearly intervals thereafter, and submit the Potential Impact Classification to Council.
5. The design, construction, commissioning, maintenance and operation shall be in accordance with the New Zealand Dam Safety Guidelines published by The New Zealand Society on Large Dams, using the prevailing Potential Impact Classification determined as described in Condition 4.



6. The Consent Holder shall prepare a Commissioning Plan and submit it to the Consent Authority for review prior to commencing commissioning of the dam.
7. The Consent Holder shall prepare an Emergency Action Plan based on the New Zealand Dam Safety Guidelines published by the New Zealand Society on Large Dams and submit to Council for review prior to exercising this consent. The Plan shall cover the construction, commissioning and post-commissioning (operation) phases. The Plan shall use the prevailing Potential Impact Classification determined as described in Condition 4.
8. The Consent Holder shall, upon request, provide certification from a suitably experienced and qualified professional engineer that the conditions of this consent are being complied with.
9. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge overburden, and contaminants from overburden onto land in circumstances where they may enter water

for the purpose of temporary and permanent storage of overburden resulting from the construction and operation of a lignite coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road, approximately 1 kilometre east of Ngapara, North Otago

Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Map reference: Development Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. The activity shall be carried out in accordance with the application for resource consent submitted to Council on 21 February 2007, and documents entitled "Preliminary Slope Stability for Assessment – Holcim Cement Supply Options Project North Otago" and "Geological Modeling and Quarry Pit Planning for Consent Applications Holcim Cement Supply Options Project North Otago, New Zealand".
2. This activity shall be carried out so as to ensure that compliance with conditions of Consents 2007.200, 2007.202 and 2007.203 is not compromised.
3. The Consent Holder shall retain suitably qualified and experienced person(s) to design and supervise the development, construction and operation of the overburden disposal areas. All disposal areas shall be in accordance with accepted engineering practice and overburden management processes shall be in accordance with accepted geotechnical, material handling and geochemical management practices.



4. Prior to any deposition of overburden an inspection of the disposal area foundation shall be undertaken by a suitable qualified person(s) and a copy of the inspection report provided to the Consent Authority.
5. The Consent Holder shall keep records and survey the size and location of all foundation preparation, and drainage installation for overburden sites, and provide these details along with confirmation of zone where acid generating overburden has been placed, to the Consent Authority on an annual basis.
6. The Consent Holder shall report to the Consent Authority on an annual basis, the quantity of overburden disposed of at the site, including a breakdown of the volume of acid generating overburden placed in the disposal area.
7. The Consent Holder shall keep records and survey the size and location of overburden sites on a monthly basis.
8. At six monthly intervals following the commencement of this consent the Consent Holder shall conduct groundwater quality monitoring. A representative sample shall be obtained from each of the on-site groundwater monitoring bores required to be installed under Condition 2 of Consent 2007.205, and at additional sites located within completed overburden sites.
 - (a) The relative water level in each bore shall be measured and recorded prior to the collection of each groundwater sample.
 - (b) Groundwater sampling procedures shall be in accordance with "The New Zealand Guidelines for the Collection of Groundwater Samples for Chemical and Isotopic Analysis" science report 99/9, dated April 1999 and published by the Institute of Geological and Nuclear Sciences.
 - (c) To avoid cross-contamination between groundwater bores, exclusive water sampling devices shall be used in each bore.
 - (d) For all other field equipment used between groundwater bores, appropriate decontamination measures shall be undertaken to avoid cross-contamination.
9. Water sampled under condition 8, shall be tested for the following parameters:
 - (a) Sulphate
 - (b) Sulphide
 - (c) Total Recoverable Arsenic
 - (d) Total Recoverable Zinc
 - (e) Total Recoverable Copper
 - (f) Total Recoverable Nickel
 - (g) Total Recoverable Chromium
 - (h) Total Recoverable Cadmium
 - (i) Dissolved Iron
 - (j) Boron
 - (k) pH
 - (l) Aluminium
10. All sampling and analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority



11. Within 2 weeks of receiving results of monitoring undertaken under Conditions 8, 9 and 10 of this consent, the applicant shall forward a copy to the Consent Authority.
12. Should sampling undertaken under Conditions 8, 9 and 10 of this consent indicate that levels of parameters listed in Condition 9 have increased by 50% from background levels as a result of the Consent Holders activity, they should undertake an investigation into the cause, and then prepare and implement an appropriate mitigation plan in consultation with the Consent Authority.
13. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report may be undertaken in conjunction with Condition 14 of Consent 2007.202, and shall include as a minimum:
 - (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects;
 - (b) A comparison of data with previously collected data in order to identify any emerging trends;
 - (c) A summary of any relevant observations made during any site works undertaken;
 - (d) Copies of the laboratory analytical results for any sampling undertaken;
 - (e) Any remedial actions undertaken at the site;
 - (f) Any further remedial actions recommended;
 - (g) A summary of maintenance activities during the monitoring period; and
 - (h) Meteorological information during the monitoring period including temperature and daily rainfall.
14. On completion of the works a suitable qualified individual shall supply the Consent Authority a Statement of Opinion (Final Geotechnical and Geochemical Completion Report) as to the compliance of the works to the specifications.
15. Prior to exercising this consent, the Consent Holder shall prepare a management plan for the site that shall include (but not be limited to) the following:
 - (a) Confirmation of design criteria.
 - (b) Final landform design contours.
 - (c) Design elements required to manage slope stability including sub soil drainage and structure fill elements.
 - (d) Detail of geochemical design elements.
 - (e) Detail of how acid mine drainage material will be identified in pit and placed in the specific cells designs for acid generating overburden.
 - (f) Description of stage construction activities.
 - (g) Outline of proposed construction sequence including staged:
 - (i) Access road development;
 - (ii) Excavation and management of topsoil;
 - (iii) Preparation of foundation;
 - (iv) Detail of how acid mine drainage material will be identified on site;
 - (v) Fill placement including provision for staged acid generation cell development;
 - (vi) Sediment control measures; and



- (vii) Monitoring of sediment discharges.
 - (h) Construction programme (subject to review).
 - (i) Contingency planning.
 - (j) Reporting.
16. The Consent Holder shall review and update the management plan on a regular basis (as required), and shall ensure that the Consent Authority has a copy of the most up to date management plan.
17. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
18. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to land in circumstances where they may enter water

for the purpose of stockpiling lignite coal

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbling Creek Road, approximately 1 kilometre east of Ngapara, North Otago.

Legal descriptions of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Map Reference: Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. This consent shall be exercised in accordance with the application for resource consent dated 21 February 2007 and all supporting documents (which are deemed to be incorporated in, and form part of this consent).
2. This activity shall be carried out so as to ensure that compliance with conditions of Consents 2007.200, 2007.202 and 2007.203 is not compromised.
3. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or



(b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.

4. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.200

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to air

for the purpose of developing and operating a lignite coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road, approximately 1 kilometre east of Ngapara, North Otago

Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

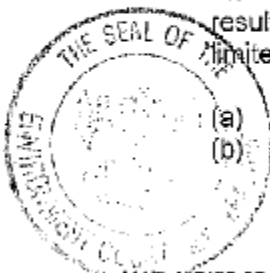
Map reference: Development Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. The discharges to air shall be from the extraction, crushing, screening and transportation of coal and the construction of the coal mine.
2. The Consent Holder shall construct and operate the mine and associated processes generally in accordance with the documentation provided in the application dated 21 February 2007 and any supplementary information provided subsequent to that application.
3. There shall be no emission of dust resulting from the Consent Holder's activities that is offensive or objectionable at or beyond the boundary of the Consent Holder's property.
4. The Consent Holder shall minimise any adverse effect on the environment resulting from the discharge of dust. The methods used shall include but not be limited to the following:

- (a) Revegetating bare areas, including stockpiles as soon as practicable;
- (b) Minimising the areas of disturbed ground;



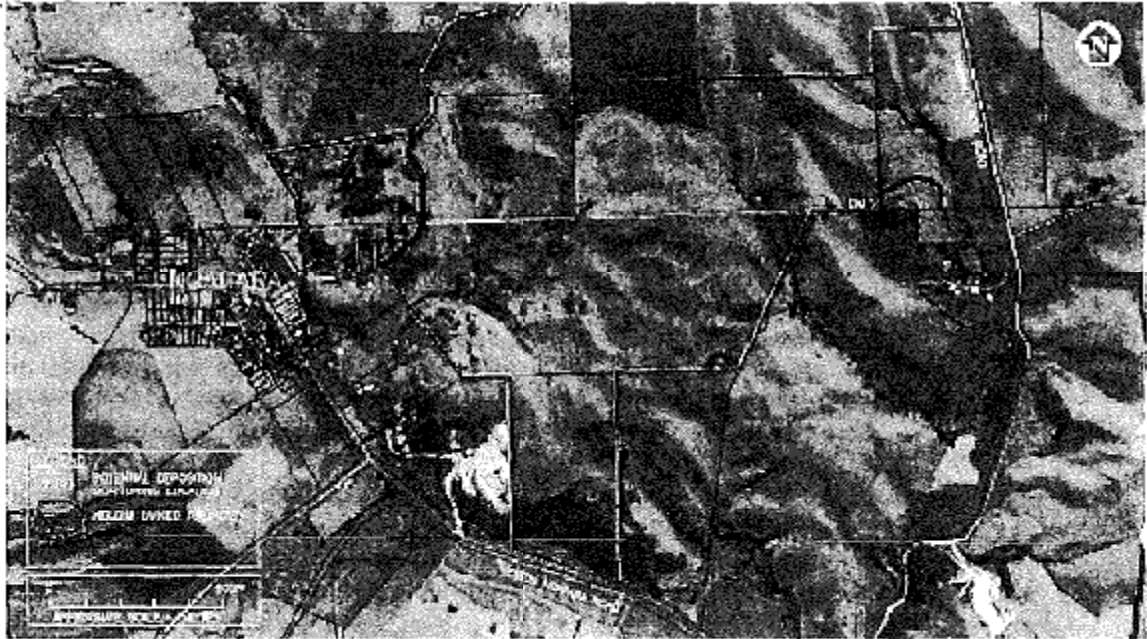
- (c) Carrying out land stripping and land restoration operations at times of least vulnerability to neighbours;
 - (d) Taking wind conditions into account in planning and carrying out work to minimise dust dispersion;
 - (e) Limiting the height and slope of stockpiles;
 - (f) Using water and dust suppressants on all disturbed surfaces including roads and stockpiles when required;
 - (g) Applying a speed restriction of all internal roads;
 - (h) Resurfacing of roads and yard areas with clean aggregate free of fine material when required.
5. The Consent Holder shall monitor dust deposition rates at 30 day intervals at two mine sites to be determined by the Consent Authority, in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site.
6. The Consent Holder shall monitor background dust deposition rates at 30 day intervals at two sites in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site. The background monitors shall be located in Ngapara and Weston at locations that are sufficiently removed from the quarry activities so that they will not be affected by emissions from the mine. This background deposition monitoring is also required by Consents 2007.178 and 2007.187.
7. If any insoluble dust deposition measurements exceed 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period, the Consent Holder shall undertake an immediate review of dust mitigation methods, unless it can be demonstrated that sources other than the mine have contributed the majority of the deposition. This review shall establish the cause of the high results and recommend measures to improve the level of dust mitigation. A report outlining the findings of this review shall be provided to the Consent Authority within one month of the high result being received.
8. The Consent Holder shall operate a meteorological data collection station at the Ngapara coal mine. The station shall use a mast that is at least three metres high. At a minimum the meteorological data collection station shall electronically monitor using an automated logging system capable of hourly resolution, the following parameters:
- (i) Wind speed (0 – 55 metres per second \pm 2 percent)
 - (ii) Wind direction (0 degrees- 360 degrees, \pm 5 degrees, referenced to True)
 - (iii) Air temperature (-30 degrees Celsius - 70degrees Celsius \pm 0.3 degrees Celsius)
 - (iv) Humidity (0 percent -100 percent relative humidity \pm 5 percent)
- Atmospheric pressure (500 hectopascals-1100 hectopascals \pm 2 hectopascals).



9. The Consent Holder shall prepare and implement an environmental management plan that includes dust management methods. The environmental management plan shall be prepared and approved by the Consent Authority three months prior to the exercise of this consent. The environmental management plan shall be reviewed annually thereafter. The matters to be included in the environmental management plan shall include but not be limited to the following:
- (a) A description of the dust sources on site.
 - (b) The methods to be used for controlling the dust at each source during construction and operation of the mine.
 - (c) The additional methods to be used if mine activities take place within 300 metres of a sensitive location such as a residential dwelling or commercial premise.
 - (d) A description of the dust monitoring programme and how it is to be carried out and the methods to be used.
 - (e) A description of the reporting requirements and how they are to be carried out.
 - (f) A description of the programme for rehabilitation and revegetation of the site.
 - (g) A method for recording and responding to complaints from the public.
 - (h) Training of employees and contractors to make them aware of the requirements of the dust management plan.
 - (i) Assignment of responsibility for reviewing and implementing the environmental management plan.
10. The Consent Holder shall submit the results of all dust monitoring to the Consent Authority in electronic and written form by not later than the last day of each calendar month, incorporating the results of all monitoring received in the previous month, undertaken in accordance with the conditions of this consent.
11. The Consent Holder shall produce an annual summary report by 31 March each year following the commencement of this consent, on the dust monitoring required by the conditions of this consent for the previous year. The report shall include an analysis of the monitoring data in relation to compliance with trigger limits taking into consideration mine production and meteorological conditions during the monitoring period. The report shall also include an analysis of the efficacy of the dust mitigation measures used by the Consent Holder and make recommendations for any changes that are considered necessary.
12. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the anniversary of the commencement of this consent, and every year following that period, for the purpose of:
- (a) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
 - (b) Determining whether the conditions of this consent are adequate to deal with any adverse effects on the environment, which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent.



Appendix 1: Location of deposition monitors as required under Condition 5



- (c) Determining whether the conditions of this consent are appropriate based on the results of the monitoring and reviews undertaken pursuant to Conditions 6, 7, 8 and 11 of this consent.
- 12A. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the receipt of the ambient monitoring results required under Conditions 5 to 7, for the purpose of assessing the need to require additional dust monitoring and reporting if the results presented in the report indicate that the ambient levels of contaminants are exceeded in the following situation:
- (a) More than one 30 day insoluble dust deposition measurement taken over a calendar year as required by monitoring Condition 5 exceeds 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period as required by Condition 6 that can be attributed to the Consent Holder's activities.
13. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.201

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge treated wastewater to land

for the purpose of disposal of wastewater from staff facilities at the Ngapara Coal Pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road, approximately 1 kilometre east of Ngapara, North Otago

Legal description of land: Pt Lot 12 DP 195; Lot 1 DP 8498; Secs 61-62 Blk III Oamaru SD; Lots 1-4 DP 195; Pt Secs 1-2 Sec 30 Blk III Oamaru

Development Area bounded by:

NZMS 260 J41:342-626 (north-east)
 NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)

Conditions:

1. The discharge shall only be wastewater from staff facilities, as described in the consent application submitted to the Consent Authority on 21 February 2007.
 - (a) The treatment and disposal system shall be constructed and installed in accordance with the details and plans supplied with the consent application submitted to the Consent Authority on 21 February 2007, and prior to installation the Consent Holder shall submit to the Consent Authority an engineered design that takes into account the need to ensure appropriate percolation, loading and monitoring for the system.
 - (b) Prior to commissioning the treatment and disposal system of this consent, the Consent Holder shall supply the Consent Authority with a Producer Statement or a Certificate of Compliance, certifying that the treatment and disposal system has been installed in accordance with Condition 1(a).



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2. The volume of effluent discharged shall not exceed 2,200 litres per day and shall be evenly distributed over the entire disposal field (except those parts of the field being rested), such that the maximum application rate does not exceed

5 millimetres per day in any part of the disposal field. For the purposes of determining compliance with this condition, the daily volume shall be based on a weekly average, measured in accordance with condition 3.

3. The Consent Holder shall install a flow meter on the outlet pipe from the treatment system and continually measure and record the daily (based on a weekly average) volume of effluent being discharged to the disposal field. The Consent Holder shall, beginning 13 months after the first date of exercise of this consent and every 12 months thereafter, and upon request, forward the record for the previous 12-month period to the Consent Authority.
4. Within three months of the commencement of this consent, the Consent Holder shall prepare and forward to the Consent Authority an Operations and Management Manual for the treatment and disposal system, to ensure its effective and efficient operation at all times. The system shall be operated in accordance with this manual, which may be updated as appropriate. The manual shall include, but not be limited to:
 - (a) A brief description of the treatment system, including a site map indicating the location of the treatment system, discharge location and monitoring sites;
 - (b) Key operational matters;
 - (c) Monitoring and reporting procedures, including but not limited to:
 - (i) Contingency plan for system malfunction and breakdown;
 - (ii) Contingency plan for maintaining effluent quality during periods of peak flows;
 - (d) Population numbers that the system is designed to accommodate for;
 - (e) A complaints and system malfunctions recording system; and
 - (f) Details of the measures to be taken to meet the quality of discharge set out in Condition 8.
5. The record of complaints and malfunctions shall be submitted to the Consent Authority within two weeks after any complaint or malfunction occurring, together with the details of the remedial measures taken. At all times, the Consent Holder shall ensure that the Consent Authority has a copy of the up to date Operations and Management Manual.
6. All sampling techniques employed in respect of the conditions of this consent shall be acceptable to the Consent Authority. All analysis carried out in connection with the consent shall be performed by a laboratory that meets ISO 17025 standards, or otherwise as specifically approved by the Consent Authority.
7.
 - (a) Beginning three months after the first date of exercise of this consent, the Consent Holder shall collect quarterly, representative samples of the final effluent, prior to discharge to the disposal field.
 - (b) After compliance with Condition 8 has been verified for eight consecutive sampling occasions, the Consent Holder shall at least twice a year, and approximately six months apart, collect representative samples of the final effluent, prior to discharge to the disposal field. Each sample collected under this condition shall be analysed for:
 - (i) Five day biochemical oxygen demand (BOD₅);
 - (ii) Total suspended solids;
 - (iii) Total nitrogen;
 - (iv) Escherichia coli.



(d) The analytical sampling results shall be reported in writing to the Consent Authority within 14 days of the Consent Holder receiving the results.

8. Beginning three months after the first date of exercise of this consent, final effluent discharged to the disposal field shall comply with the following criteria:

Parameter	Maximum value
Five day biochemical oxygen demand (gram per cubic metre)	30
Total suspended solids (gram per cubic metre)	30
Total nitrogen (gram per cubic metre)	30
	Rolling 75 percentile not to exceed
Total phosphorous (gram per cubic metre)	15
Escherichia coli (colony forming units per 100 millilitre)	10,000

9. The distance to any property boundary from any part of the treatment and disposal system shall be at least 1.5 metres.
10. No ponding or surface run-off of effluent shall occur as a result of the exercise of this consent.
11. There shall be no odour emission resulting from the treatment and disposal system that is offensive or objectionable to such an extent that it has an adverse effect on the environment beyond the boundary of the property on which the consent is exercised.
12. There shall be no vehicle access over any part of the land disposal area.
13. This permit does not authorise the discharge of sludge to land or water.
14. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent, for the purpose of:
- Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - Requiring the Consent Holder to adopt the best practicable option, in order to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent. Best practicable option includes, but is not limited to, connecting to a reticulated community sewerage scheme, should such an option become available to the Consent Holder.



15. If the Consent Holder:

- (a) Discovers koiwi tangata (human skeletal remains), waahi taoka (resources of importance), waahi tapu (places or features of special significance) or other Maori artefact material, the Consent Holder shall without delay:
- (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police.
 - (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
- (i) Stop work within the immediate vicinity of the discovery or disturbance;
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993; and
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

16. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: **Holcim (New Zealand) Limited**

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater to water

for the purpose of constructing and operating lignite coal pit.

for a term of 35 years

Location of activity:

Discharge Point A: Approximately 900 metres north-east of the intersection of Paradise Gully Road and Weston-Ngapara Road, Ngapara, North Otago.

Discharge Point B: Approximately 550 metres north north-west of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Discharge Point C: Approximately 420 metres north-west of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Discharge Point D: Approximately 400 metres west north-west of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Discharge Point E: Approximately 500 metres south-south West of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago

Legal description of land:

Discharge Point A: Sect 37 Block 37 Awamoko Survey District

Discharge Point B: Lot 1 DP 18150

Discharge Point C: Lot 1 DP 18150

Discharge Point D: Lot 1 DP 18150

Discharge Point E: Sect 46, Block VII Awamoko Survey District

Map reference:

Discharge Point A: NZMS 260 J41:334-821

Discharge Point B: NZMS 260 J41:342-824

Discharge Point C: NZMS 260 J41:342-822

Discharge Point D: NZMS 260 J41:342-821

Discharge Point E: NZMS 260 J41:342-814



Conditions:**General**

1. The discharge shall be only treated stormwater and water from the pit as described in the consent application received by the Consent Authority on 21 February 2007.
2. The treatment and disposal system shall be constructed and installed substantially in accordance with the details and plans supplied with the consent application submitted to the Consent Authority dated 21 February 2007, except where otherwise identified in subsequent conditions of this consent.
3. No water from the mine site shall be discharged to the natural waters without first passing through the water management and treatment system

Specific

4. The water treatment plant provided for in Condition 2 above shall include a reject pipeline that can return water to the sediment pond if the treated water does not meet the quality required under condition 6 of this consent.
5. The Consent Holder shall prepare a stormwater management plan. A copy of this stormwater management plan shall be submitted to the Consent Authority prior to exercising this consent. This plan shall be reviewed and updated as a minimum once every 5 years. The revised plan shall be forwarded to the Consent Authority. The matters to be included in this stormwater management plan shall include but not be limited to the following:
 - (a) Description of the water management system
 - (b) Design criteria including exceedance criteria
 - (c) (d) Design information on volumes, treatment efficiencies and design water levels
 - (e) Design drawings for water management infrastructure including treatment plant
 - (f) Locations of discharges
 - (g) Monitoring plan describing the sampling and analytical methodology (to be based on best practice) and including the location, frequency and parameters to be measured
 - (h) Operation and maintenance plans including:
 - (i) Operator instructions for the water treatment plant and pumps
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructures and consent non-compliance
6. All discharges authorised by this consent shall conform to the following limits:
 - (a) During the first three months of operation, the total suspended solids discharged from the treatment plant shall not exceed 100 grams per cubic metre.
 - (b) Notwithstanding the requirements of Condition 6(a) the total suspended solids shall not to exceed 30 grams per cubic metres.



- (c) The Consent Holder shall not cause in the following parameters to not be met in Waiareka Creek:

Parameters	Trigger Levels
pH	6.5-9
Total Suspended Solids	An increase by more than 10 milligrams per litre between the downstream and upstream samples, whenever the concentration at the upstream point is less than 20 milligrams per litre; or by more than 50% if the concentration at the upstream point is more than 20 milligrams per litre. This limit may be exceeded for no more than 1 hour following the start of a rainfall event. This limit may only be met for a maximum period of 24 hours during any one rainfall event.
Turbidity	An increase by more than 10 Nephelometric Turbidity Units between the downstream and upstream samples, whenever the sample at the upstream point is less than 20 Nephelometric Turbidity Units; or by more than 50% if the sample at the upstream point is more than 20 Nephelometric Turbidity Units. This limit may be exceeded for no more than 1 hour following the start of a rainfall event. This limit may only be met for a maximum period of 24 hours during any one rainfall event.
Total Recoverable Aluminium	0.087
Dissolved arsenic	0.15
Dissolved cadmium	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved chromium	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved copper	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved mercury	0.00065
Dissolved nickel	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved lead	Hardness adjusted criteria based on Equation 1 and constants in Table 2
Dissolved zinc	Hardness adjusted criteria based on Equation 1 and constants in Table 2

Note: Units g/m^3 unless otherwise stated.

Equation 1:

$$\text{Criteria} = \{\exp\{m_c [\ln(\text{hardness})] + b_c\} \times (CF)\}/1000$$

Table 2: Constants for hardness adjusted criteria

Constituent	m_c	b_c	CF
Dissolved cadmium	0.7409	-4.719	$1.101672 - [\ln(\text{hardness})(0.041838)]$

Dissolved chromium	0.8190	0.6848	0.860
Dissolved copper	0.8545	-1.702	0.960
Dissolved nickel	0.8460	0.0584	0.997
Dissolved lead	1.273	-4.705	1.46203-[ln(hardness)(0.145712)]
Dissolved zinc	0.8473	0.884	0.986

7. The Consent Holder shall ensure, through the use of outfall devices, that the dissolved oxygen level of any flow entering a stream from a stormwater treatment device is of such a level that once adequate mixing has taken place the oxygen level of the stream is not lowered.
8. The Consent Holder shall ensure that outfalls are of such location, design and performance as to minimise erosion of the waterway and surrounding area.

Monitoring

9. The Consent Holder shall continuously monitor the turbidity and pH of the discharge from the water treatment plant.
10. At monthly intervals, the Consent Holder shall collect a representative sample of:
 - (a) Stormwater discharging into Bobbing Creek from the Water Treatment Plant;
 - (b) The four minor sediment ponds near the outlets (NS1, NS2, NS3, NS4 Appendix 1);
 - (c) The main sediment pond near the outlet (NS6 Appendix 1);
 - (d) Waiareka Creek, 30 metres upstream of its confluence with Bobbing Creek;
 - (e) Waiareka Creek, immediately downstream of its confluence with Bobbing Creek.

Should the water quality be within the limits for discharges given in Condition 6 for more than two years, then the monitoring can be reduced to quarterly measurements provided that the water quality continues to meet the limits given in Condition 6 and that the activity or intensity of activity at the mine do not change significantly.

11. The samples collected under condition 10 shall be analysed for:
 - (a) pH.
 - (b) Suspended solids.
 - (c) Alkalinity.
 - (d) Hardness.
 - (e) Trace metals including:
 - (i) Total Recoverable and dissolved Aluminium
 - (ii) Dissolved Arsenic
 - (iii) Dissolved Cadmium
 - (iv) Dissolved Chromium
 - (v) Dissolved Copper
 - (vi) Dissolved Mercury



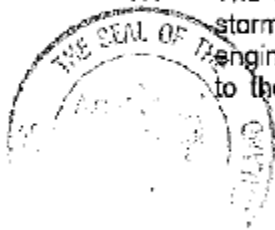
- (vii) Dissolved Nickel
- (viii) Dissolved Lead
- (ix) Dissolved Zinc

Should the water quality be within the limits for discharges given in Condition 6 for more than two years, then the monitoring can be reduced to pH and suspended solids at the sediment ponds and stormwater discharge from the water treatment plant. Provided that the quality continues to meet the limits given in Condition 6 and that the activity or intensity of activity at the mine does not change significantly.

12. The discharge of contaminants authorised by this consent shall not cause water quality downstream of the discharge to Bobbing Creek to exceed the limits given in Condition 6.
13. All analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority.
14. Analytical results from sampling required under this consent shall be forwarded within one month of sampling to the Consent Authority. The results to be provided shall include a copy of the original laboratory report and also be in electronic format (excel spreadsheet (.xls) or comma separated value (csv) format).
15. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report may be undertaken in conjunction with condition 13 of consent 2007.196, and shall include as a minimum:
 - (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects;
 - (b) A comparison of data with previously collected data in order to identify any emerging trends;
 - (c) A summary of any relevant observations made during any site works undertaken;
 - (d) Copies of the laboratory analytical results for any sampling undertaken;
 - (e) Any remedial actions undertaken at the site;
 - (f) Any further remedial actions recommended;
 - (g) A summary of maintenance activities during the monitoring period; and
 - (h) Meteorological information during the monitoring period including temperature and daily rainfall.
16. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 24 hours.

Maintenance

17. The Consent Holder shall have an operation and maintenance manual for the stormwater management system developed by a suitably qualified stormwater engineer. A copy of this operation and maintenance manual shall be submitted to the Consent Authority prior to exercising this consent. The matters to be



included in the maintenance manual shall include, but not be limited to the following:

- (i) Operator instructions for the water management systems and equipment including the water treatment plant and pumps
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructure and consent non-compliance
18. The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report as required in Condition 14.

Review Condition

19. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
20. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge drainage water to water

for the purpose of discharging clean surface runoff diverted around the boundaries of and within of the lignite coal pit operation

for a term of 35 years

Location of activity:

Discharge Point A: Approximately 800 metres north north-east of the intersection of Paradise Gully Road and Weston-Ngapara Road.

Discharge Point B: Approximately 400 metres north-east of the intersection of Patterson Road and Bobbing Creek Road.

Discharge Point C: Approximately 700 metres north north-east of the intersection of Bobbing Creek Road and Weston Ngapara Road.

Legal description of land:

Discharge Point A: Section 63, Block VI Awamoko Survey District

Discharge Point B: Lot 1, DP 18150

Discharge Point C: Section 46, Block VII Awamoko Survey District

Map reference:

Discharge Point A: NZMS 260 J41:331-821

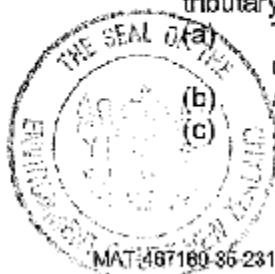
Discharge Point B: NZMS 260 J41:342-824

Discharge Point C: NZMS 260 J41:344-812

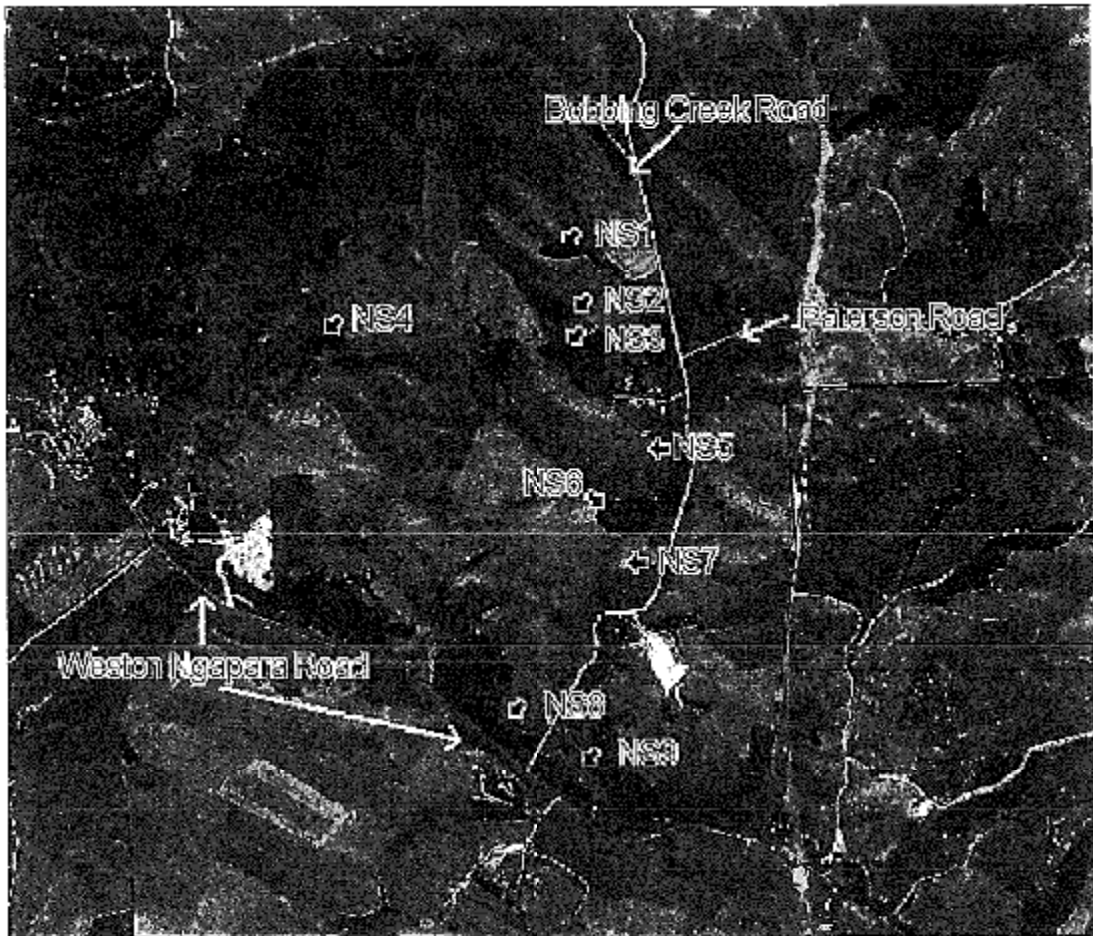
Conditions:

1. The discharge shall be only clean water as described in the consent application received by the Consent Authority on 21 February 2007.
2. The clean water drains shall be designed to contain a ten percent annual exceedance probability rain event and be designed with erosion protection if required.
3. The discharge shall not give rise to any of the following effects in the unnamed tributary:

- (a) The production of any conspicuous oil or grease films, scums or foams or floatable or suspended materials; or
- (b) Any conspicuous change in colour or visual clarity; or
- (c) Any erosion at the discharge location.



Appendix 1: Surface water monitoring locations at the Ngapara Coal Pit Site.



4. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 48 hours.
5. The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report required under Condition 14 of Consent 2007.202.
6. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
7. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



CONSENT NO: 2007.204

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to water

for the purpose of undertaking instream works associated with the operation of a coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbling Creek Road, approximately 1 kilometre east of Ngapara, North Otago

Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Map reference: Area bounded by:

NZMS 260 J41:347-818 (east)
NZMS 260 J41:340-806 (south-east)
NZMS 260 J41:332-811 (south-west)
NZMS 260 J41:328-819 (west)
NZMS 260 J41:332-827 (north-west)
NZMS 260 J41:342-826 (north-east)

Conditions:

1. This permit shall be exercised in conjunction with land use consents 2007.208, 2007.209, 2007.210 and 2007.218.
2. The discharge authorised by this permit shall only be silt and sediment resulting from instream works, and cement and cement products from structure construction, as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and addition information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
3. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all discharges authorised by this consent, to the Compliance Unit of the Consent Authority at least 10 working days before the discharge commences. As a minimum, the discharge plan shall include the following information:
 - (a) A map showing the specific location of each discharge;

- (b) The timing and duration for each discharge;
 - (c) The maximum rate of each discharge;
 - (d) The name of the receiving watercourse;
 - (e) The erosion and sediment control measures for each discharge.
4. The Consent Holder shall take all practicable steps to minimise the release of sediment into the water while disturbing the bed of the watercourse.
 5. The Consent Holder shall ensure that all practical measures are taken to prevent cement and cement products, from entering flowing water. This shall include:
 - (a) Avoiding flowing water come into contact with the concrete until the concrete is firmly set.
 - (b) Using boxing or other similar devices to contain wet cement during construction of the structure.
 - (c) Ensuring that the handling of cement is undertaken in a manner that does not result in spillage into any watercourse.
 - (d) If any concrete is spilled beyond the boxing, pouring of concrete shall stop immediately and all concrete shall be removed from the watercourse.
 - (e) No equipment used in the pouring of concrete shall be washed out on site.
 6. No lawful take of water is to be adversely affected as a result of any discharge.
 7. The Consent Holder shall ensure that the discharge does not give rise to any significant adverse effect on aquatic life.
 8. The exercise of this consent shall not give rise to a conspicuous adverse change in the colour or clarity of the watercourses downstream of the discharge point.
 9. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.
 10. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.

Consent No: 2007.205

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Ho'cim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take groundwater

for the purpose dewatering a coal pit

for a term of 35 years

Location of Activity: An area of approximately 33 hectares, approximately 1.3 kilometres west north-west of the intersection of Weston Ngapara Road and Bobbing Creek Road, Ngapara, North Otago.

Legal description of point of abstraction: Sec 37 Blk VII Awamoko SD, Sec 48 Blk VII Awamoko SD, Lot 1 DP 18150, Sec 63 Blk VI Awamoko SD, Sec 64 Blk VI Awamoko SD, Sec 62 Blk VI Awamoko SD.

Map reference: Development Area bounded by:

NZMS 260 J41:341-825(north-east)
 NZMS 260 J41:341-820 (south-east)
 NZMS 260 J41:333-820 (south-west)
 NZMS 260 J41:333-825 (north-west)

Conditions:

1. In consultation with the Consent Authority the Consent Holder shall install five piezometers surrounding the Ngapara Pit for the purpose of monitoring the impact of quarry dewatering on the underlying groundwater. The position of the five bores shall be within the areas defined in Figure 1 attached to this consent. Note, monitoring is not required of the two sites marked with an X on Figure 1.
 - (a) The five bores should be drilled to a depth at least five metres below the water table and screened over at least one metre.
 - (b) The water level data in all five monitoring bores should be measured to an accuracy of 0.01 metre on a weekly basis.
 - (c) Monitoring shall be carried out by the Consent Holder for at least six months prior to exercise of the consent.
 - (d) Water level data shall be supplied to the Consent Authority electronically by 1 September and 1 April each year and at any other time on request. Data shall include date and time of measurement and water level in meters above mean sea level.
 - (e) The water level data (hydrograph) of all five bores shall be analysed by a suitably qualified expert working for the Consent Holder and a report



on the analysis shall be approved by the Consent Authority every two years by 1 September.

2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent for the purpose of imposing/revising aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels
3. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Adjusting or altering the method of water take data recording and transmission; or
 - (d) Addition of conditions or a mitigation plan should monitoring in condition 1 indicate unforeseen affects.
4. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



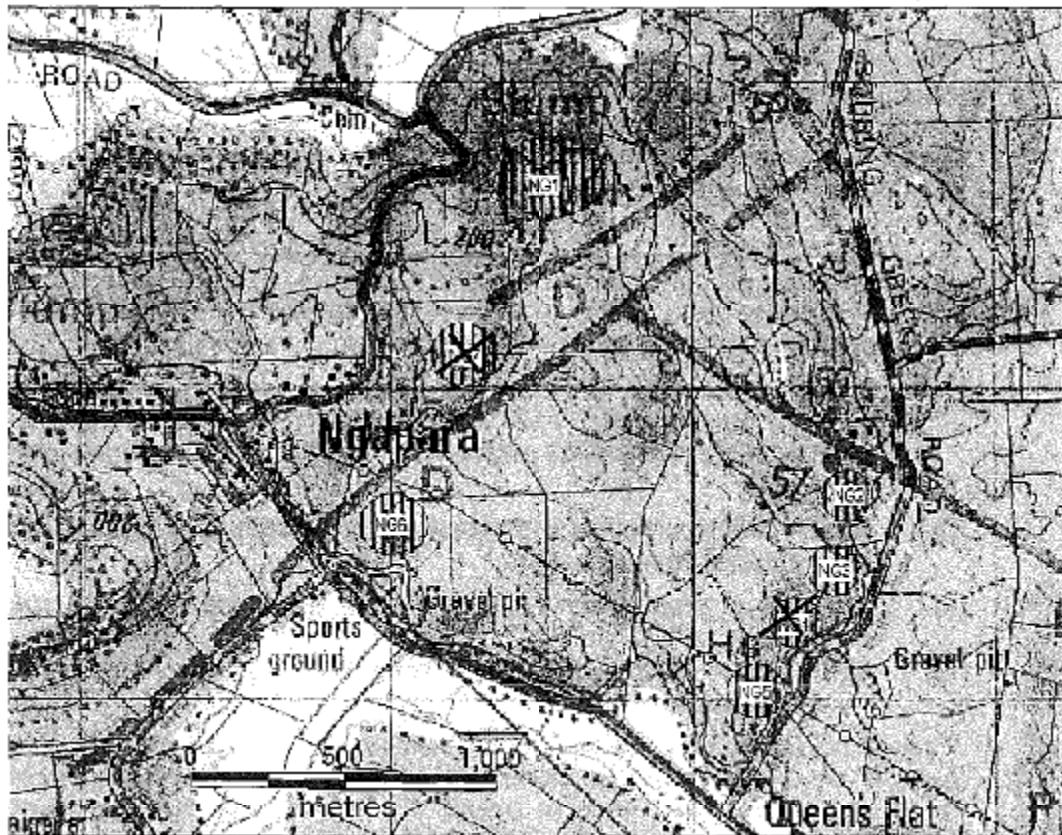


Figure 1: General location of five monitoring bores surrounding the proposed Ngapara Coal Pit, shown by blue striped circles. The topographic map is shown with an overlay of the geology from North Otago Groundwater Investigation Report 1993.



Consent No: 2007.206

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To dam water

for the purpose of operating a sediment pond to treat stormwater

for a term of 35 years

Location: Approximately 500 metres south-south West of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Legal description: Sect 46, Block VII Awamoko Survey District

Map reference: NZMS 260 J41:342-814

Conditions:

1. Water dammed under this consent shall be impounded by the structure authorised under Consent 2007.218.
2. The volume of water stored behind the dam shall be no greater than 10,000 cubic metres.
3. During filling of the reservoir, the Consent Holder shall monitor the reservoir margins for ground subsidence or erosion.
4. The Consent Holder shall ensure that the reservoir and all its appurtenant component and accessory structures are maintained in a safe and stable condition.
5. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of the each anniversary of the commencement of this consent or within three months of receiving monitoring results for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
Reviewing the frequency, type or method of reporting.



6. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.207

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take and use water as supplementary allocation from an unnamed tributary of Bobbing Creek

for the purpose of dust suppression

for a term of 35 years

Location of point of abstraction: Approximately 500 metres south-south West of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Legal description of land adjacent to point of abstraction: Sect 46, Block VII Awamoko Survey District

Map reference of point of abstraction: NZMS 260 J41:342-814

Legal description of land where water is to be used: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Conditions:

1. This consent shall be exercised substantially in accordance with the application for resource consent dated 21 February 2007 including the supporting documents and submitted by the Consent Holder and subsequent correspondence in support of the application for consent, except to the extent that any condition in this consent conflicts with such material. If there is an inconsistency the conditions and terms of this consent shall prevail.
2. This consent shall be exercised in conjunction with Consent 2007.206.
3. The Consent Authority may, in accordance with Section 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of:
 - (a) The anniversary of the commencement of this consent; or
 - (b) Any material change in circumstance (including, but without limitation, changes in, or expansion, or cessation of the mining activities to which the consent relates); or
 - (c) Cessation of the use of the impoundment created by the dam under Consent 2007.206; or
 - (d) Receiving a notice of the Consent Holder's intention to decommission the dam under Consent 2007.206.



for the purposes of:

- (i) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (ii) ensuring the conditions of this consent are consistent with any National Environmental Standards.
4. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.208

WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To temporarily divert named and unnamed tributaries of Waiareka Creek

for the purpose of undertaking instream works associated with the operation of a coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road, approximately 1 kilometre east of Ngapara, North Otago

Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Map reference: Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. This consent shall be exercised in conjunction with Land Use Consent 2007.209.
2. The diversions shall be undertaken as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and addition information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
3. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.
4. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all diversion works authorised by this consent, to the Consent Authority at least 10 working days before the work commences. As a minimum, the programme of work shall include the following information:



- (a) A map showing the specific location of each diversion;
 - (b) The timing and duration of the proposed works for each diversion;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each diversion channel;
 - (d) An assessment of flow carrying capacity of the watercourse prior to being diverted;
 - (e) An assessment of flow carrying capacity of the diversion channel;
 - (f) A statement as to whether each diversion is permanent or temporary;
 - (g) The methods used to construction each diversion.
5. The diversion of water from the watercourse shall only occur once the diversion channel and/or pipe has been fully excavated.
 6. When diverting water into the new diversion channel and/or pipe, all reasonable steps shall be taken to ensure that sediment and discolouration of water are kept to a minimum.
 7. The Consent Holder shall undertake all reasonable measures to promote bank stability of the new channel as rapidly as possible.
 8. There shall be no reduction in the surface flow of the watercourse as a result of the diversion.
 9. No lawful take of water shall be adversely affected as a result of the diversion.
 10. The Consent Holder shall ensure the diversion does not cause any flooding, erosion, scouring, land instability or damage of any other person's property. Should such effects occur due to the diversion, the Consent Holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.
 11. Representative photographs shall be taken of the site:
 - (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

12. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.



13. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.209

LAND USE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To disturb the bed of named and unnamed tributaries of Waiareka Creek

for the purpose of undertaking instream works associated with the operation of a coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road approximately 1 kilometre east of Ngapara, North Otago.

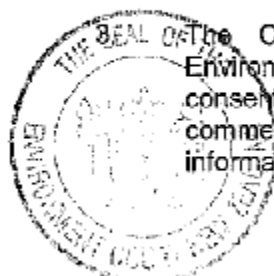
Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62-63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-48 Blk VII Awamoko SD.

Map reference: Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. The works authorised by this consent shall be undertaken and located as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and addition information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.



The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all disturbance works authorised by this consent, to the Consent Authority at least 10 working days before the work commences. This program shall include, but not be limited to the following information:

- (a) A map showing the specific location of each bed disturbance area;
 - (b) The timing and duration of the disturbance works;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each bed disturbance area;
 - (d) An assessment of flow carrying capacity of any potentially affected watercourse prior to the disturbance works;
 - (e) An assessment of flow carrying capacity of the watercourse following the disturbance works;
 - (f) The methods used to control sediment runoff into watercourses including use of control structures, compaction of material and revegetation.
4. Works shall be undertaken as far as practicable, when flows in the watercourses are low.
 5. During the exercise of this consent, the Consent Holder shall ensure that no contaminants other than what is authorised by Discharge Permit 2007.204 enter watercourses. In the event of contamination, the Consent Holder shall undertake remedial action and shall notify the Consent Authority as soon as practical.
 6. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into the watercourses. No refuelling of machinery shall occur within the watercourse.
 7. All machinery shall be water blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from the watercourses. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Biosecurity New Zealand recommendations, as stated on its May 2006 fact sheet titled "Don't Spread Didymo". The Consent Holder shall ensure that wash water does not directly discharge into surface water.
 8. The Consent Holder shall ensure that any bed disturbance is limited to the extent necessary to carry out the works.
 9. The works shall not result in any decrease of the upstream and downstream cross-sectional area of the streambed, as the streambed exists prior to commencement of the works authorised by this consent.
 10. The Consent Holder shall minimise damage to riparian vegetation when exercising this consent.
 11. The Consent Holder shall ensure the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the Consent Holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.



12. Prior to, or immediately following completion of the works authorised by this consent, the Consent Holder shall ensure that all plant, equipment, chemicals,

fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.

13. The Consent Holder shall ensure that any damage to the stream banks, including riparian vegetation, be reinstated to a quality at least equivalent to that prior to the works commencing, within one month of completion of the works.
14. Representative photographs shall be taken of the site:
- (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

15. If the Consent Holder:
- (a) Discovers koiwi tangata (human skeletal remains), or Maori artefact material, the Consent Holder shall without delay:
 - (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police; and
 - (ii) Stop work within the immediate vicinity of the discovery to allow site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation.

Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993; and
 - (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

16. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its



intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:

- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.
17. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



LAND USE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To erect various structures in the bed of named and unnamed tributaries of Waiareka Creek

for the purpose of undertaking instream works associated with the operation of a lignite coal pit

for a term of 35 years

Location of Activity: An area of approximately 2.6 square kilometres, west of Bobbing Creek Road, approximately 1 kilometre east of Ngapara, North Otago

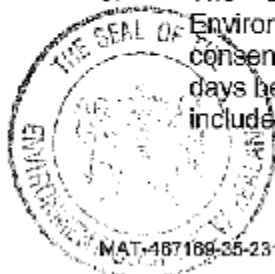
Legal description of land: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Map reference: Area bounded by:

NZMS 260 J41:347-818 (east)
 NZMS 260 J41:340-806 (south-east)
 NZMS 260 J41:332-811 (south-west)
 NZMS 260 J41:328-819 (west)
 NZMS 260 J41:332-827 (north-west)
 NZMS 260 J41:342-826 (north-east)

Conditions:

1. The structures shall be sized, constructed and located substantially in general accordance with the application for consent submitted to the Consent Authority dated 21 February 2007 and additional information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall ensure that any contractors engaged to undertake work authorised by this consent abide by the conditions of this consent. A copy of this consent shall be present on site at all times while the work is being undertaken.
3. The Consent Holder shall submit a location specific Supplementary Environmental Management Plan for all construction works authorised by this consent, to the Engineering Unit of the Consent Authority at least 10 working days before the work commences. As a minimum, the programme of work shall include the following information:



- (a) A map showing the specific location of each structure to be installed;
 - (b) The timing and duration of the proposed works;
 - (c) Cross-section and plan drawings to scale showing the dimensions of each structure;
 - (d) An assessment of flow carrying capacity of the watercourse prior to installation of each structure;
 - (e) Identification of secondary flow paths;
 - (f) The methods used to install each structure.
4. The structures shall be constructed and maintained in accordance with good engineering practice.
 5. The Consent Holder shall provide for the safe routing of flood and super-design flows past each structure.
 6. The Consent Holder shall upon request, and at their own cost, provide certification from a suitably qualified and experienced professional engineer that the conditions of this consent are complied with.
 7. No structure shall cause a permanent elevation of pre-existing stream water levels.
 8. The gradient of any culvert must match that of the existing channel invert.
 9. Works shall be undertaken as far as practicable, when flows in the watercourses are low.
 10. During the exercise of this consent, the Consent Holder shall ensure that no contaminants other than what is authorised by Discharge Permit 2007.204 enter watercourses. In the event of contamination, the Consent Holder shall undertake remedial action and shall notify the Consent Authority as soon as practical.
 11. Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into the watercourses. No refuelling of machinery shall occur within the watercourse.
 12. All machinery shall be water blasted prior to being brought on site and following completion of the works, to reduce the potential for pest species being introduced to or taken from the watercourses. Machinery and equipment that has worked in watercourses shall, prior to entering and leaving the site, also be cleaned in accordance with Bio security New Zealand recommendations, as stated on its May 2006 fact sheet titled "Don't Spread Didymo". The Consent Holder shall ensure that wash water does not directly discharge into surface water.
 13. All works shall be undertaken, as far as practicable, outside the wet bed of the watercourse.
14. The Consent Holder shall minimise damage to riparian vegetation when exercising this consent.



15. The Consent Holder shall ensure the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage. Should such effects occur due to the exercise of this consent, the consent holder shall, if so required by the Consent Authority and at no cost to the Consent Authority, take all such actions as the Consent Authority may request to remedy any such damage.
16. Prior to, or immediately following completion of the works authorised by this consent, the Consent Holder shall ensure that all plant, equipment, chemicals, fencing, signage, debris, rubbish and any other material brought on site is removed from the site. The site shall be tidied to a degree at least equivalent to that prior to the works commencing.
17. The Consent Holder shall ensure that any damage to the stream banks, including riparian vegetation, be reinstated to a quality at least equivalent to that prior to the works commencing, within one month of completion of the works.
18. Representative photographs shall be taken of the site:
- (a) Before works commence; and
 - (b) Immediately after the completion of works and rehabilitation of the site.

These photographs shall be provided to the Consent Authority within one month of the final photographs being taken.

19. If the Consent Holder:
- (a) Discovers koiwi tangata (human skeletal remains), or Maori artefact material, the Consent Holder shall without delay:
 - (i) Notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police; and
 - (ii) Stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.

Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.

- (b) Discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the Consent Holder shall without delay:
 - (i) Stop work within the immediate vicinity of the discovery or disturbance; and
 - (ii) Advise the Consent Authority, the New Zealand Historic Places Trust, and in the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an



- Archaeological Authority pursuant to the Historic Places Act 1993; and
- (iii) Arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority.

20. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent.
21. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No: 2007.218

LAND USE CONSENT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To erect a dam (known as the "main sediment pond") in the bed of a tributary of Waiareka Creek.

for the purpose of creating sediment pond to treat stormwater from a quarry site.

for a term of 35 years

Location: Approximately 500 metres south-south West of the intersection of Paterson Road and Bobbing Creek, Ngapara, North Otago.

Legal description: Sect 46, Block VII Awamoko Survey District

Map reference: NZMS 280 J41:342-814

Conditions:

1. The structures shall be sized, constructed and located as described in the application for consent submitted to the Consent Authority dated 21 February 2007 and additional information provided. If there are any inconsistencies between the application and this consent, the conditions of this consent shall prevail.
2. The Consent Holder shall submit details of design prior to exercising this consent along with details of proposed inspection and supervision regime during construction.
3. The dam and its appurtenant structures shall be constructed and maintained in accordance with good engineering practice.
4. The Consent Holder shall have a suitably experienced and qualified professional engineer assess the Potential Impact Classification in accordance with the Building Act regulations, at the time of exercising this consent and at five yearly intervals thereafter, and submit the Potential Impact Classification to Council.
5. The design, construction, commissioning, maintenance and operation shall be in accordance with the New Zealand Dam Safety Guidelines published by The New Zealand Society on Large Dams, using the prevailing Potential Impact Classification determined as described in Condition 4.
6. The Consent Holder shall prepare a Commissioning Plan and submit it to the Consent Authority for review prior to commencing commissioning of the dam.



7. The Consent Holder shall prepare an Emergency Action Plan based on the New Zealand Dam Safety Guidelines published by the New Zealand Society on Large Dams and submit to Council for review prior to exercising this consent. The Plan shall cover the construction, commissioning and post-commissioning (operation) phases. The Plan shall use the prevailing Potential Impact Classification determined as described in Condition 4.
8. The Consent Holder shall, upon request, provide certification from a suitably experienced and qualified professional engineer that the conditions of this consent are being complied with.
9. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge overburden to land

for the purpose of permanent storage of overburden resulting from the construction and operation of a silica sand pit

for a term of 35 years

Location of Activity: An area of approximately 0.2 square kilometres, north of Victoria Hill Road, approximately 1.5 kilometres west of Windsor, North Otago

Legal description of land: Sec 2A Elderslie Settlement; Pt Secs 4-6 Block X Awamoko SD; Pt Sec 9 Block X Awamoko SD; Pt CR Secs 4 – 5 Block X Awamoko SD; Lot 6 DP 1474; Pt Sec 6 and Pt Sec 9 Blk X Awamoko SD; Pt Sec 6 and Pt Sec 9 Blk X Awamoko SD being more particularly shown on DP 609; Sec 33 Blk X Awamoko SD; Sec 1A Elderslie Settlement; Sec 34 Blk X Awamoko SD; Lot 3 DP 333470; Pt Lot 5 DP 1410; Secs 3A and 3B Elderslie Settlement; Lot 1 DP 17841.

Map reference: Development Area bounded by:

NZMS 260 J41:345-760 (east) NZMS 260 J41:345-759 (south-east)

NZMS 260 J41:341-760 (south-west)

NZMS 260 J41:336-765 (north-west)

NZMS 260 J41:338-766 (north)

Conditions:

1. The activity shall be carried out in accordance with the application for resource consent submitted to Council on 21 February 2007, and documents entitled "Preliminary Slope Stability for Assessment – Holcim Cement Supply Options Project North Otago" and "Geological Modelling and Quarry Pit Planning for Consent Applications Holcim Cement Supply Options Project North Otago, New Zealand".
2. This activity shall be carried out so as to ensure that compliance with conditions of Consents 2007.212, 2007.213 and 2007.214 is not compromised.
3. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months from the commencement of this consent for the purpose of:



- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.
4. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To discharge contaminants to air

for the purpose of developing and operating silica sand pit.

for a term of 35 years

Location of Activity: An area of approximately 0.2 square kilometres, north of Victoria Hill Road, approximately 1.5 kilometres west of Windsor, North Otago

Legal description of land: Sec 2A Elderslie Settlement; Pt Secs 4-6 Block X Awamoko SD; Pt Sec 9 Block X Awamoko SD; Pt CR Secs 4 – 5 Block X Awamoko SD; Lot 6 DP 1474; Pt Sec 6 and Pt Sec 9 Blk X Awamoko SD; Pt Sec 6 and Pt Sec 9 Blk X Awamoko SD being more particularly shown on DP 609; Sec 33 Blk X Awamoko SD; Sec 1A Elderslie Settlement; Sec 34 Blk X Awamoko SD; Lot 3 DP 333470; Pt Lot 5 DP 1410; Secs 3A and 3B Elderslie Settlement; Lot 1 DP 17841.

Map reference: Development Area bounded by:

NZMS 260 J41:345-760 (east)
 NZMS 260 J41:345-759 (south-east)
 NZMS 260 J41:341-760 (south-west)
 NZMS 260 J41:336-765 (north-west)
 NZMS 260 J41:338-766 (north)

Conditions

1. The discharges to air shall be from the extraction and transportation of sand and the construction of the sand quarry.
2. The Consent Holder shall construct and operate the pit and associated processes generally in accordance with the documentation provided in the application dated 21 February 2007 and any supplementary information provided subsequent to that application.
3. There shall be no emission of dust resulting from the Consent Holder's activities that is offensive or objectionable at or beyond the boundary of the Consent Holder's property.
 The Consent Holder shall minimise any adverse effect on the environment resulting from the discharge of dust. The methods used shall include but not be limited to the following:



- (a) Revegetating bare areas, including stockpiles as soon as practicable,
 - (b) Minimising the areas of disturbed ground,
 - (c) Carrying out land stripping and land restoration operations at times of least vulnerability to neighbours,
 - (d) Taking wind conditions into account in planning and carrying out work to minimise dust dispersion,
 - (e) Limiting the height and slope of stockpiles,
 - (f) Using water and dust suppressants on all disturbed surfaces including roads and stockpiles when required,
 - (g) Applying a speed restriction on all internal roads,
 - (h) Resurfacing of roads and yard areas with clean aggregate free of fine material when required.
5. The Consent Holder shall monitor dust deposition rates at 30 day intervals at two mine sites as shown on the attached as Appendix 1 to this consent, in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site.
6. The Consent Holder shall monitor background dust deposition rates at 30 day intervals at two sites in accordance with draft ISO Standard ISO/SIS 4222.2 ("Air Quality Measurement of Atmospheric Dustfall – Horizontal Deposit Gauge Method" 1982). Where the specified method is unavailable or no longer appropriate an equivalent method may be used to the satisfaction of the Consent Authority. Total dust and insoluble dust shall be reported for each site. The background monitors shall be located in Ngapara and Weston at locations that are sufficiently removed from the quarry activities so that they will not be affected by emissions from the mine. This background deposition monitoring is also required by Consents 2007.178 and 2007.187.
7. If any insoluble dust deposition measurements exceed 4 grams per square metre per thirty days above dust levels measured at the background sites during the same monitoring period, the Consent Holder shall undertake an immediate review of dust mitigation methods, unless it can be demonstrated that sources other than the mine have contributed the majority of the deposition. This review shall establish the cause of the high results and recommend measures to improve the level of dust mitigation. A report outlining the findings of this review shall be provided to the Consent Authority within one month of the high result being received.
8. The Consent Holder shall prepare and implement an environmental management plan that includes dust management methods. The environmental management plan shall be prepared and approved by the Consent Authority three months prior to the exercise of this consent. The environmental management plan shall be reviewed annually thereafter. The matters to be included in the environmental management plan shall include but not be limited to the following:
- (a) A description of the dust sources on site.
 - (b) The methods to be used for controlling the dust at each source during construction and operation of the quarry.
 - (c) The additional methods to be used if quarry activities take place within 300 metres of a sensitive location such as a residential dwelling or



- commercial premise.
- (d) A description of the dust monitoring programme and how it is to be carried out and the methods to be used.
 - (e) A description of the reporting requirements and how they are to be carried out.
 - (f) A description of the programme for rehabilitation and revegetation of the site.
 - (g) A method for recording and responding to complaints from the public.
 - (h) Training of employees and contractors to make them aware of the requirements of the environmental management plan.
 - (i) Assignment of responsibility for reviewing and implementing the environmental management plan.
9. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within six months of the anniversary of the commencement of this consent, and every year following that period, for the purpose of:
- (a) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
 - (b) Determining whether the conditions of this consent are adequate to deal with any adverse effects on the environment, which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent.
- 9A. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent for the purpose of assessing the need to require dust monitoring and reporting in the vicinity of the Windsor Sand Pit if dust discharges from that site result in a nuisance in the opinion of the Consent Authority.
10. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



Consent No. 2007.213

DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: **Holcim (New Zealand) Limited**

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater to water, and land in circumstances where it may enter water

for the purpose of constructing and operating a silica sand pit.

for a term of 35 years

Location of activity: Approximately 1.1 kilometres west of the intersection of Windsor Road and Victoria Hill Road, Windsor, North Otago.

Legal description of land: Sect 2A, Elderslie Settlement

Map reference: NZMS 260 J41:343-759

Conditions:**General**

1. The discharge shall be only treated stormwater as described in the consent application received by the Consent Authority on 21 February 2007.
2. The treatment and disposal system shall be constructed and installed substantially in accordance with the details and plans supplied with the consent application submitted to the Consent Authority dated 21 February 2007.

Specific

3. The Consent Holder shall prepare a stormwater management plan. A copy of this stormwater management plan shall be submitted to the Consent Authority prior to exercising this consent. This plan shall be revised and updated as a minimum once every five years. The revised plan shall be forwarded to the Consent Authority. At minimum this stormwater management plan shall include:
 - (a) Description of the water management system
 - (b) Design criteria including exceedance criteria
 - (c) Results demonstrating consent compliance
 - (d) Design information on volumes, treatment efficiencies and design water levels
- (e) Design drawings for water management infrastructure
Locations of discharges



- (g) Monitoring plan describing the sampling and analytical methodology (to be based on best practice) and including the location, frequency and parameters to be measured.
- (h) Operation and maintenance plans including:
 - (i) Operator instructions for the water management systems
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructures and consent non-compliance.

Monitoring

5. At three monthly intervals, and timed to coincide with groundwater monitoring required under Condition 6 of this consent, the Consent Holder shall collect a representative sample of water stored in the pit sump.
6. Immediately following the collection of the samples under Condition 5, each sample shall be analysed for:
 - (a) pH
 - (b) Total Recoverable Arsenic
 - (c) Total Recoverable Cadmium
 - (d) Total Recoverable Chromium
 - (e) Total Recoverable Copper
 - (f) Total Recoverable Mercury
 - (g) Total Recoverable Nickel
 - (h) Total Recoverable Lead
 - (i) Total Recoverable Zinc
7. Pit water samples collected under Condition 5, and analysed under Condition 6 shall comply with the New Zealand Drinking Water Standards.
8. All sampling and analyses carried out in connection with this consent shall be performed by a laboratory that meets ISO17025 standards, or otherwise as specifically approved by the Consent Authority.
9. Analytical results from sampling required under this consent shall be forwarded within one months of sampling to the Consent Authority. The results to be provided shall include a copy of the original laboratory report and also be in electronic format (excel spreadsheet (.xls) or comma separated value (csv) format).
10. The Consent Holder shall provide to the Consent Authority an annual monitoring report by 30 September each year. This report shall include as a minimum:
 - (a) A summary of monitoring undertaken in accordance with the conditions of this consent and a critical analysis of the information in terms of compliance and adverse effects;
 - (b) A comparison of data with previously collected data in order to identify any emerging trends;
 - (c) Copies of the laboratory analytical results for any sampling undertaken;
 - (d) Any remedial actions undertaken at the site;
 - (e) Any further remedial actions recommended;



- (f) A summary of maintenance activities during the monitoring period; and
 - (g) Meteorological information during the monitoring period including temperature and daily rainfall.
11. The Consent Holder shall report any non-compliance with these conditions to the Consent Authority within 24 hours.

Maintenance

12. The Consent Holder shall have an operation and maintenance manual for the stormwater management system. A copy of this operation and maintenance manual shall be submitted to the Consent Authority prior to exercising this consent. At minimum this operation and maintenance manual shall include:
- (i) Operator instructions for the water management systems and equipment;
 - (ii) Maintenance requirements with frequency and types of maintenance to be undertaken; and
 - (iii) Emergency control plans to responses to potential failures of the water management infrastructure and consent non-compliance.
13. The Consent Holder shall maintain the stormwater management system to the standard required to achieve the consent conditions. Details of all system maintenance shall be kept in a log and the log shall be made available to the Consent Authority on request. The maintenance activities shall be also summarised in the annual monitoring report.

Review Condition

14. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
- (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
15. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



DISCHARGE PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

to discharge stormwater to water

for the purpose of constructing and operating a silica sand pit.

for a term of 35 years

Location of activity: Approximately 1.1 kilometres west of the intersection of Windsor Road and Victoria Hill Road, Windsor, North Otago.

Legal description of land: Sect 3A, Elderslie Settlement

Map reference: NZMS 260 J41:343-758

Conditions

1. This consent shall be exercised in conjunction with Consent 2007.213.
2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent every three months of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards.
3. Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



WATER PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Holcim (New Zealand) Limited

Address: 1/1 Show Place, Addington, Christchurch

To take and use water as supplementary allocation from an unnamed tributary of Windsor Stream

for the purpose of dust suppression

for a term of 35 years

Location of point of abstraction: Approximately 1.1 kilometres west of the intersection of Windsor Road and Victoria Hill Road, Windsor, North Otago.

Legal description of land adjacent to point of abstraction: Sect 2A, Elderslie Settlement

Map reference of point of abstraction: NZMS 260 J41:343-759

Legal description of land where water is to be used: Sec 37 Blk VII Awamoko SD; Sec 44 Blk VII Awamoko SD; Secs 62 -63 Blk VI Awamoko SD; Lot 1 DP 18150; Pt Sec 46 Blk VI Awamoko SD; Sec 64 Blk VI Awamoko SD; Secs 45-46 Blk VII Awamoko SD.

Conditions:

1. This consent shall be exercised substantially in accordance with the application for resource consent dated 21 February 2007 including the supporting documents and submitted by the Consent Holder and subsequent correspondence in support of the application for consent.
2. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent for the purpose of:
 - (a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) Ensuring the conditions of this consent are consistent with any National Environmental Standards; or
 - (c) Adjusting or altering the method of water take data recording and transmission; or
 - (d) Addition of conditions or a mitigation plan should monitoring in Conditions 2 or 3 of Consent 2007.192 indicate unforeseen affects.

Pursuant to Section 125(1) of the Act this resource consent shall lapse on the expiry of seven years after the date of commencement of the consents unless



the consents are given effect to before the end of that period or upon application in terms of Section 125(1)(b) of the Act, the Consent Authority grant a longer period of time.



**IN THE ENVIRONMENT COURT
AT CHRISTCHURCH**

ENV-2008-CHC-050;
ENV-2008-CHC-046;
ENV-2008-CHC-085

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of appeals pursuant to Section 120 of
the Act

AND

IN THE MATTER of an appeal pursuant to Clause 14 of
the First Schedule of the Act

BETWEEN **HOLCIM (NEW ZEALAND) LIMITED**

AND **WAJAREKA PRESERVATION INCORPORATED** **VALLEY SOCIETY**

AND **ANDREW WILLIAM JAMES RENALSON**

Appellants

AND **OTAGO REGIONAL COUNCIL**

AND **WAITAKI DISTRICT COUNCIL**

Respondents

STATEMENT OF ISSUES IN THE CONTEXT OF SECTION 104

1. **ACTUAL AND POTENTIAL EFFECTS (SECTION 104(1)(a))**
- 1.1 **Landscape effects:**
- a. Is the Whitstone escarpment an outstanding natural feature in terms of s6(b)?
- b. Is the plant site part of an outstanding landscape in terms of s6(b) because of heritage (including tangata whenua/cultural) elements in that landscape?



- c. What effects will there be on landscape/visual amenity values? Will those effects be appropriately avoided, remedied, or mitigated by the conditions proposed?
- d. To the extent that s6(b) applies, is the cement plant an inappropriate development on that site?

1.2 **Historic heritage:**

- a. Is the plant site an "area" of "historic heritage" in terms of s6(f)?
- b. To the extent that s6(f) applies, is the cement plant an inappropriate development on that site?

1.3 **Tourism effects:**

- a. Will there be an adverse effect on tourism in the Waitareka Valley? If so, will that effect be such that consent should be declined or additional conditions imposed?

1.4 **Economic effects:**

- a. Is Mr Jones' evidence compelling in relation to economic projections about future cement demand and efficiency?
- b. Are the effects of a possible future closure of the existing Westport works relevant to the Court's consideration? If so, what does that mean for the application?
- c. Do the economic projections by Mr Jones give rise to uncertainty such that consent should be declined?

1.5 **Potential effects on Waitaha values:**

- a. What are those values?
- b. Will those values be affected and if so, to what extent?



- c. Does the evidence raise ss6(e) and (f) issues arising from Waitaha's ancestral connection with the land?
- d. Do the proposed conditions of consent appropriately avoid, remedy or mitigate any such effects?
- e. What body is appropriate for consultation on iwi issues?

1.3 **Socio-economic and amenity effects:**

- a. What are the socio-economic effects and amenity effects on the community?

2. **RELEVANT PLANNING PROVISIONS (SECTION 104(1)(b))**

- 2.1 Provisions of the Otago Regional Policy Statement and Waitaki District Plan which may be relevant are attached. The issue is the relevance and weight to be attached to these provisions (including the CPA and its effect), and how they are to be applied in respect of this application.

3. **OTHER MATTERS (SECTION 104(1)(c))**

Resource Consent Application

- 3.1 The Kai Tahu ki Otago Natural Resource Management Plan is relevant. Copies of the relevant provisions are attached.
- 3.2 The consents for the Weston limestone/siltstone quarries, tuff quarry, the sand pit at Windsor and coal mine at Ngapara were not appealed by any party other than Holcim. Holcim's appeal on the conditions for those sites has been settled.
- 3.3 The railway designation is in place and was not appealed.
- 3.4 What are the cumulative effects from the totality of the consented activities?
- 3.5 Whether there has been sufficient consideration of alternatives to meet the requirements of Schedule 4 and s105(1)(c).



Variation 4

3.6 Variation 4 – does the variation satisfy the tests set out in *Long Bay-Okura Great Park Society Inc. v North Shore City Council*?

4. PART II

4.1 The relevance of the following Part II matters are at issue:

- a. Section 6 (b) (the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development).
- b. Section 8(f) (the protection of historic heritage from inappropriate subdivision, use, and development).

4.2 The parties agree that the following Part II matters are relevant:

- a. Section 6(a) (the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waaʻhi tapu, and other taonga).
- b. Section 7(a) (kaitiakitanga).
- c. Section 7(aa) (the ethic of stewardship).
- d. Section 7(b) (the efficient use and development of natural and physical resources).
- e. Section 7(c) (the maintenance and enhancement of amenity values).
- f. Section 7(f) (maintenance and enhancement of the quality of the environment).

4.3 Does the proposal meet the purpose of the Act (s5)?





- Legend**
- * P1 / Plant / Quarry (Approximate Location)
 - Holcim Owned Land Subject to Investigation
 - Waitaki District Council Cement Policy Area

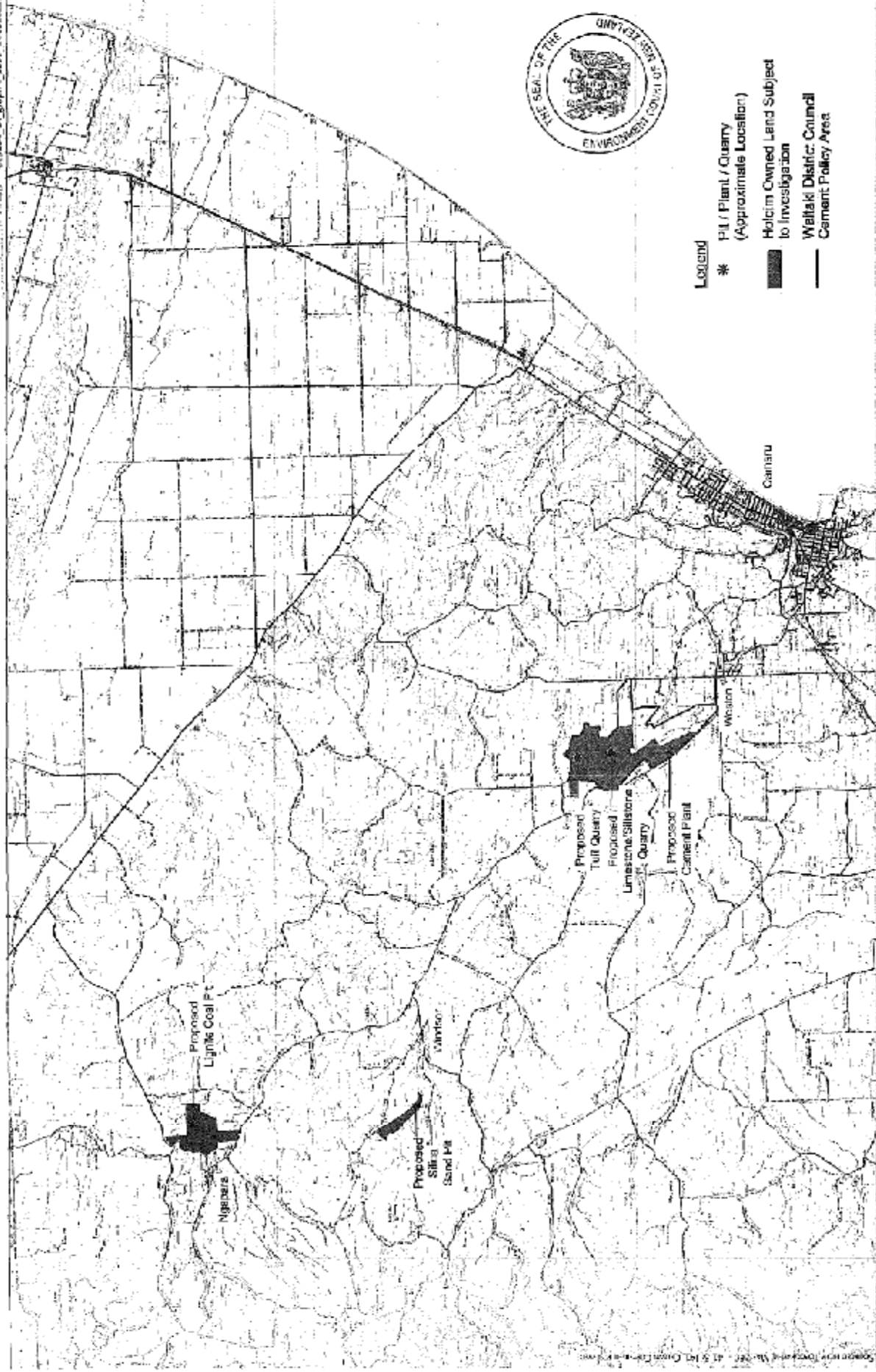
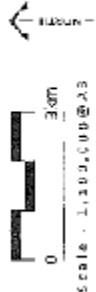


FIGURE 1

General Site Location Map

28th October 2008
 Contact: ahm@holcim.co.nz
 2 Balls Bluff Rd, Dunedin
 9001



Relevant Planning Provisions**Otago Regional Policy Statement (s104(1)(b)(iii)):**

Objective 4.4.1 Waahi Tapu (Sacred Places): To recognise the spiritual and customary importance of waahi tapu (such as burial places) to Kai Tahu and to recognise and provide for the protection of waahi tapu from physical disturbance, erosion, pollution and inappropriate land use.

Objective 4.4.2 Waahi Taoka (Treasured Resources): To recognise and provide for the special significance that all taoka play in the culture of Kai Tahu.

Objective 5.4.1 To promote the sustainable management of Otago's land resources in order:

- (a) To maintain and enhance the primary productive capacity and life-supporting capacity of land resources; and
- (b) To meet the present and reasonably foreseeable needs of Otago's people and communities.

Objective 5.4.2 To avoid, remedy or mitigate degradation of Otago's natural and physical resources resulting from activities utilising the land resource.

Objective 5.4.3 To protect Otago's outstanding natural features and landscapes from inappropriate subdivision, use and development.

Policy 5.5.1 To recognise and provide for the relationship Kai Tahu have with Otago's land resource through:

- (a) Establishing processes that allow the existence of heritage sites, waahi tapu and waahi taoka to be taken into account when considering the subdivision, use and development of Otago's land resources; and
- (b) Protecting, where practicable, archaeological sites from disturbance; and
- (c) Notifying the appropriate runanga of the disturbance of any archaeological site and avoiding, remedying, or mitigating any effect of further disturbance until consultation with the kaitiaki runanga has occurred.



Policy 5.5.6 To recognise and provide for the protection of Otago's outstanding natural features and landscapes which:

- (a) Are unique to or characteristic of the region; or
- (b) Are representative of a particular landform or land cover occurring in the Otago region or of the collective characteristics which give Otago its particular character; or
- (c) Represent areas of cultural or historic significance in Otago; or
- (d) Contain visually or scientifically significant geological features; or
- (e) Have characteristics of cultural, historical and spiritual value that are regionally significant for Tangata Whenua and have been identified in accordance with Tikanga Maori.

Policy 9.5.5 To maintain and, where practicable, enhance the quality of life for people and communities within Otago's built environment through:

- (a) Promoting the identification and provision of a level of amenity which is acceptable to the community; and
- (b) Avoiding, remedying or mitigating the adverse effects on community health and safety resulting from the use, development and protection of Otago's natural and physical resources; and
- (c) Avoiding, remedying or mitigating the adverse effects of subdivision, landuse and development on landscape values.

Policy 9.5.6 To recognise and protect Otago's regionally significant heritage sites through:

- (a) Identifying Otago's regionally significant heritage sites in consultation with Otago's communities; and
- (b) Developing means to ensure those sites are protected from inappropriate subdivision, use and development.

Objective 5.4.5 To promote the sustainable management of Otago's mineral resources in order to meet the present and reasonably foreseeable needs of Otago's communities.

Policy 5.5.8 To recognise known mineral deposits and to consider the potential for access to those mineral resources to be compromised or removed by other alternative land development.



Waitaki District Plan (s104(1)(b)(iv)):

Cultural / Heritage Values

MAT-467169-35-237-V3:mat

1.3.4 Objective B: Protection and where appropriate, enhancement of waahi tapu, waahi taoka, cultural property and mahinga kai.

2.3.1 Objective A: The conservation and enhancement of the heritage values of the District, including historic places and areas, waahi tapu sites and areas, and archaeological sites, in order that the character and history of the District can be preserved and managed.

Mineral Extraction/Mining Activity and Cement Manufacture

Planning Maps (Cement Policy Area) – Maps 22 and 26

16.7.1 Objective 6: Extractive industries are given the ability to access minerals but in a way that avoids, remedies or mitigates adverse effects on the environment.

16.7.2 Policies 6

Policy 1 – To acknowledge the importance of known mineral deposits in the District by, where appropriate, discouraging the establishment of future activities or developments that are likely to compromise access to these mineral deposits.

16.7.2 Policies 6

Policy 2 – To recognize the potential adverse effects of extractive operations, including mineral exploration, on the rural environment, and to control such operations in order that an assessment may be made as to the sensitivity of an existing area and the degree to which an operation will avoid, remedy or mitigate any adverse effects on the amenity and environment of the rural area.

Policy 4 – To ensure that after mining, sites are rehabilitated sufficiently to enable the establishment of activities appropriate to the area.

16.7.2 Policies

Policy 5 – To avoid, remedy or mitigate adverse effects on the rural amenity and environment by, where appropriate, encouraging extractive industries to continue in existing locations.

Landscape



16.8.2 Landscape Objective:

Subdivision, use and development are managed so that:

- the values identified for the outstanding or significant natural features, the outstanding landscapes, and the coastal landscapes are protected from inappropriate use and development;
- the overall landscape qualities of the Rural Scenic Zone are retained.

16.8.3 Policies

....

- 6 To ensure that those characteristics leading to the identification of an outstanding or significant natural feature are protected.
- 7 To achieve the outcomes in Policies 2 to 6 above, the following policies on subdivision, use or development are to apply: ...
 - f) Earthworks are encouraged to be located away from visually sensitive areas, and where practicable towards the edges of the landform and vegetation patterns;
 - g) Earthworks should not compromise any rare or distinctive geological outcrops or any other values associated with an identified as an outstanding or significant natural feature;
 - h) Earthworks, where possible, should be restored and finished to a contour sympathetic to the surrounding physiography and should also be revegetated with a cover appropriate to the site and setting;

.....

- 8 Earthworks should not compromise any rare or distinctive geological outcrops or any other values associated with an identified outstanding or significant natural feature;
- 9 To recognise that the Rural General Zone is made up of landscapes that are generally of a lesser value because the land has been more intensively developed, and contains a greater range of land uses with a greater dominance of buildings and structures; at the same time acknowledging that the rural amenity of this zone still needs to be managed (refer to Issue 4 and the Associated Objective and Policies).



Rural Amenity

16.5.1 Objective 4 – Rural Amenity: A level of rural amenity that is consistent with the range of activities anticipated in the rural areas, but which does not create unacceptably unpleasant living or working conditions for the District's residents and visitors, nor a significant deterioration of the quality of the rural environment.

16.5.2 Policies 4

- 3 To set performance standards or to use enforcement provisions for activities that may cause unpleasant living or working conditions for other people in the rural community or that could cause a significant adverse effect to the environment.

Business Activities

16.6.1 Objective 5 – Business Development In Rural Areas: The establishment of commercial, industrial, service, recreational and accommodation activities, that are compatible with the amenities of the lower density rural environment.

16.6.2 Policies 5

- 2 To enable the establishment of business activities in the rural areas only where the activities need to establish in the rural area (in terms of scale, effluent disposal requirements, use of or relationship to rural resources) and no reasonable alternatives exist for their location within established settlements.
- 5 In considering applications for business activities in rural areas, to ensure that there is no loss of rural amenity as a result of the effects of the proposal, including cumulative adverse effects in conjunction with other activities that are, or may, establish in the rural areas.

The Kai Tahu ki Otago Natural Resource Management Plan (s104(1)(c)):

9.9.2 Wahi Tapu Objectives

- i. All wahi tapu are protected from inappropriate activities.
- ii. Kai Tahu ki Otago have access to wahi tapu.
- iii. Wahi tapu throughout the Otago region are protected in a culturally appropriate manner.



9.9.4 Cultural Landscapes Objectives

- i. The relationship that Kai Tahu ki Otago have with land is recognised in all resource management activities and decisions.
- ii. The protection of significant cultural landscapes from inappropriate use and development.
- iii. The cultural landscape that reflects the long association of Kai Tahu ki Otago resource use within the Otago region is maintained and enhanced.

