

HURUNUI
District Council

Change

7

**Proposed Plan Change 7: Quarrying And Mining
Notified 12 March 2005**

Format

1. **Summary of the change**
2. **The Changes**
3. **Section 32 Report, including description of the changes**

Summary

This Plan change:

- (a) Changes the status of Q&M from discretionary to non-complying activity if the Q&M is located within 500m of a residential area;
- (b) Deems residential activity to be a discretionary activity if locating within 500m of commercial Q&M;
- (c) Changes a statement of the resource management issue, policies and explanations concerning Q&M activity;
- (d) Adds a new definition for “hard rock quarrying”, and refers to that as a particular type of quarrying in the policies; and
- (e) Creates a new permitted activity involving small quantity gravel extraction from specified riverbeds.

The Changes

First Chapter, “The use of non-renewable resources”, Policy 1.8, Explanation, add a second paragraph:

“Commercial quarries and mines can, however, due to the nature of the activity, have adverse effects on users of other properties. Residential uses are particularly sensitive to them. The cause of this is that not all of their adverse effects can be internalized: that is, they cannot all be mitigated to the extent that they have no effect outside the property boundary. The potential conflict between quarrying and mining and residential areas and residential activities is dealt with at policies 10.6 and 10.6(a)”.

Chapter headed “protection and enhancement of environmental quality”:

Change the third paragraph from “The key issue...is:”, to “The key issues...are:”; Number the following subparagraph “(a)” and conclude it with “; and”; and add a new subparagraph as follows:

“(b) Proximity of residential activities to certain intensive land uses – in particular, commercial quarrying and mining, sewage treatment, and intensive farming – can lead to either unnecessary adverse effects on residential activity, or “reverse sensitivity” effects producing complaints and constraints around economically beneficial land uses”.

Under issue 10, third paragraph: Delete all of the last sentence, starting with the words “*In areas of intensive use...*”.

Under Issue 10, insert a new fourth paragraph as follows:

“Some intensive land uses have effects that can be seldom wholly internalised on the site. These include commercial quarrying and mining, intensive farming, sewage treatment facilities, or vineyards in the Waipara Winegrowing Area. Quarrying and mining, intensive farming and sewage treatment facilities can have significant adverse effects on residential activities. “Reverse sensitivity” issues can also arise. The term “reverse sensitivity” refers to the effects of the existence of sensitive activities on other activities in their vicinity, particularly by leading to restraints in the carrying on of those activities. This is of particular concern where rural and/or residential dwellers move to sites close to intensive uses -such as quarries and mines or the Waipara Winegrowing Area - and seek to place restraints on the existing lawfully established activity”.

Policy 10.6: Delete it, and replace it with the following:

“To manage quarrying and mining, intensive farming, sewage treatment facilities and other intensive rural uses so that:

(a) The activity avoids or mitigates cross-boundary adverse effects on amenity values;

(b) A separation between those activities and residential type activities is maintained in most cases;

(c)The continued use and development of existing productive rural land uses is not unreasonably inhibited’.

Insert a new heading for, and text for, a new Policy 10.6(a) as follows:

“So as to avoid reverse sensitivity effects, residential activities should not locate close to quarrying and mining, intensive farming, sewage facilities or other intensive rural activities”.

Methods under Policy 10.6(a): Amend from “Policy 10.6” to “*Policies 10.6 and 10.6(a)*”.

“Explanation” under Policy 10.6(a), first paragraph: Delete the first three sentences so that the paragraph starts with “A method to implement this policy...”; and insert the following new paragraphs before that amended paragraph:

“Policies 10.6 and 10.6(a) address two situations.

The first is the extent to which the environment should be protected from the adverse effects of particular intensive uses. Quarrying and mining, intensive farming and sewage facility operators are expected to make all reasonable efforts to contain the adverse effects of their activities on site. What is reasonable depends on careful consideration of the practicality and economics of the mitigation measures available. But due to the special nature of those activities, those reasonable efforts are unlikely to internalise all effects.

Commercial quarrying and mining, for example, generally creates adverse traffic, dust, noise, vibration and visual effects that are more than minor. All reasonably practical mitigation measures intended to internalise the effects may still fail to stop those effects from being experienced outside the boundary of the property. Those effects are experienced most acutely in residential areas. The location and operation of quarrying and mining therefore must be controlled throughout the district by resource consent procedures, and in particular it should generally be kept separated from residential areas. The adverse effects of hard rock quarrying include blasting noise, vibration, and explosive sounds of rocks being crushed. These effects are generally qualitatively worse than the effects of Q&M that is limited to sand extraction activities. The separation distance from residential areas for hard rock quarrying should generally be greater than that required for sand and gravel extraction activities.

An exception to this is small scale gravel extraction from riverbeds. That extraction in many places has positive effects as it removes gravel buildup and mitigates a potential flood hazard. The adverse effects are generally no more than minimal if it is occasional extraction of relatively small quantities.

Intensive farming and sewage treatment facilities, while not controlled for the whole district, must be also generally kept separated from residential type uses.

The second situation addressed by these policies concerns the extent to which quarrying and mining, intensive farming, sewage facilities and other intensive uses should be protected from the adverse “reverse sensitivity” effects of incompatible activities. This is reinforced also at policy 1.8 of this Plan, which is to provide for the extraction of land resources in a manner that avoids or mitigates any adverse environmental effects. Those intensive uses produce resources of importance to the community, are valuable economic activities, or perform important functions. It is important to avoid unnecessary conflict between operators and people who live nearby, where that conflict could interfere with a lawfully established economic activity. Policy 10.6(a) relates to these “reverse sensitivity” circumstances, which can include: the location of residences close to intensive farming activities, which may create odour nuisances; or the location of residences close to quarries and mines, which may create noise, vibration and dust effects; or close to vineyards in the Waipara Wine Growing Area, where there may be adverse cross-boundary effects such a noise and spray drift. In such situations, some provision should be given to avoiding the creation of nuisance situations which may inhibit the continued use and development of existing rural activities.”

Policy 10.9, add the following words to the policy: “...to the community and, where they exceed those levels, generally maintain a separation distance between those noise-emitting activities and sensitive activities”.

Policy 10.9, Explanation, add the following new paragraph after the fifth paragraph:

“The noise (including vibration) emitted by quarries and mines and some other activities does at times exceed levels acceptable to the community even if it is below the standards referred to above. Rules that implement this policy therefore seek to ensure that in most cases there is a separation distance between quarrying and mining and residential activities, especially in townships. As noise and vibration effects are generally greater for hard rock quarrying than they are for sand and gravel extraction activities, the separation distances required for sand and gravel extraction activities will – subject to all other matters including the scale of the activity - generally be less than those required for hard rock quarrying. The purpose of that separation distance is to ensure that, first, the noise and vibration effects of quarrying and mining are dissipated by distance to residential activities; and secondly, to ensure that lawfully established quarrying and mining activity is not put at risk by the reverse sensitivity effects of residential users moving to sites proximate to it.”

Anticipated Environmental Results, add the following new bullet point:

“- A separation distance, in most cases, between residential activities and quarries, mines, intensive farming and sewage facilities”.

Chapter A1, Environmental amenity

Add a new Rule A1.2.21:

“A1.2.21: Quarrying in Riverbeds

Quarrying that is gravel extraction from a riverbed shall:

- (a) *Not exceed 100 cubic metres in any consecutive twelve month period extracted by or on behalf of any person, organisation or corporation;*
- (b) *Not exceed 500 cubic metres in any consecutive 12 month period extracted by or on behalf of any person, organisation or corporation, if it is extracted from one of the following rivers in the period between the first day of February and the thirty first day of September:*
- *Lottery River from the Sherwood Road crossing (where the road reverts to a walking track, at or about N32:1574:5224) to the confluence with the Mason River (at or about N32:1780:4286).*
 - *Chatterton River from the Rogerson River confluence (at or about N32:9455:5487) downstream to the confluence with the Percival River (at or about N32:9407:5050).*
 - *Percival River from the Switchback Stream confluence (at or about N32:9773:5290) downstream to the confluence with the Waiau River (at or about N32:9204:4772).*
 - *Hanmer River from immediately downstream of The Hossack homestead (at or about N32:0629:5178), downstream to the confluence with the Waiau River (at or about N32:9216:4750).*
 - *Pahau River from the Top Ford Road/Top Pahau Road crossing (at or about N33:9218:2703), downstream to the confluence with the Hurunui River (at or about N33:0204:1919).*
 - *Leamington Stream from Leamington Road crossing (at or about N33:2297:2380) downstream to the confluence with the Waiau River (at or about O32:3277:3128).*
 - *Lyndon Stream from the Lyndon Road bridge (at or about N32:0802:4269) downstream to the confluence with the Home Stream (at or about N32:0953:4132).*
 - *Home Stream from the confluence with Lyndon Stream (at or about N32:0953:4132) to the confluence with the Waiau River (at or about N32:1043:4094).*
 - *Waikari River from McRaes Road crossing (at or about M33:8899:0679), downstream to the confluence with the Hurunui River (at or about N33:1422:1379).*
 - *Kowai River, North Branch, Leithfield, from Douglas Road bridge (at or about M34:8424:8662), downstream to the coastal marine area (at or about N34:9079:7875).*
 - *Kowai River, South Branch, from Marshmans Road crossing (at or about M34:8269:7942), downstream to the confluence with the North Branch of the Kowai River (at or about M34:8935:7961).*
 - *Conway River from Ferniehurst bridge (at or about O32:3762:4225), downstream to the coastal marine area (at or about O32:4835:4348).*
 - *Waiau River from the Hope River confluence (at or about M32:7378:4601), downstream to the coastal marine area (at or about O33:4040:2555).*
 - *Leader River from the Mendip Road bridge (at or about O32:3262:4044), downstream to the confluence with the Waiau River (at or about O32:3553:3066).*

- *Hurunui River from the Mandamus River confluence (at or about M33:7362:2381), downstream to the coastal marine area (at or about O33:3301:1061).*
- *Waitohi River from Barkers Road crossing (at or about M33:7989:1540), downstream to the confluence with the Hurunui River (at or about N33:9091:1482).*
- *Waipara River from Stringers Road bridge (at or about M34:8297:9383), downstream to the coastal marine area (at or about N34:9347:8378).*

Rule A1.4:

- Amend (a) to “*Quarrying or mining in which all aspects of the activity other than transport of the extracted resource to another property are located more than 500m from a residential zone boundary*”.
- Add a new paragraph (b): “*Residential activity or visitor accommodation located less than 500m from the resource consent area for a commercial quarry or mine, except for: (i) Existing residential activity within the property on which the quarry or mine is located; and (ii) Residential activity within urban zones*”.
- Amend the paragraph lettering of the existing paragraphs (b),(c), (d) and (e) accordingly.

Rule A1.5: Add a new subparagraph (e):

“(e) *Quarrying and mining which is not provided for as a permitted or discretionary activity.*”

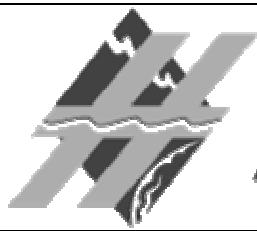
Section D, Interpretation:

Add a new definition:

“*Hard rock quarrying: A type of quarrying or mining in which the mineral extracted is rock or stone, and/or in which the activity involves rock blasting or rock crushing*”.

Section E, Appendices, Appendix E3:

Add (in the alphabetical order) “Quarries or mines”.



**Proposed Plan Change 7: Quarrying And Mining
Section 32 Report**

Introduction

This is a summary of the evaluation of proposed Plan Change (7) that decided whether it is the most appropriate option for provisions concerning Q&M activity in the District Plan. The evaluation is done under section 32 of the Resource Management Act 1991 (the RMA).

Section 32 of the RMA

Section 32 of the RMA requires Council, in achieving the purpose of the Act, to conduct and record a specified evaluation before notifying a proposed change to the District Plan. Council has to:

- (i) Carry out an evaluation that examines:
 - a) The extent to which each objective is the **most appropriate** way to achieve the purpose of the Act;
 - b) Whether, having regard to their **efficiency**, the policies, rules or other methods are the **most appropriate** for achieving the objectives;
 - c) Whether, having regard to their **effectiveness**, the policies, rules or other methods are the **most appropriate** for achieving the objectives.
- (ii) For the purposes of that examination, take into account:
 - The benefits and costs of policies, rules or other methods; and
 - The risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules or other methods.

This s32 report will first describe the context of the plan change and the reasons for it. Part of the comparison of options is in that discussion. It will continue with a detailed comparison following the description.

Description of the Changes

Issues

First, commercial Q&M activity is of social and economic benefit, but frequently has adverse effects on the environment. The adverse effects of Q&M located close to residential areas can significantly detract from amenity values and health and welfare within those areas.

Secondly, residential activities establishing close to commercial Q&M can be sensitive to the adverse effects of Q&M, which can lead to pressure to stop or change the Q&M.

This Plan change addresses the above issues by changing the activity status of Q&M locating close to residential areas, and of residential activity locating close to Q&M activity.

Background

Context of the Issue

Most people in the District live in the residential areas of our small towns. The quality of their environment in those residential areas, and the appreciation of their quality and values, is a crucial aspect of the quality of life in the District. Those who live in these residential areas are entitled to reasonable protection of the quality of their living environments, in terms of outlook and landscape, noise, traffic, or dust. Environmentally incompatible activities should generally be kept separated from those residential areas. In that way, the environment (which includes amenity values) of those residential areas is protected, as is the health and safety of the residents.

This is recognised in the District Plan in several places. Among other relevant provisions, the District Plan has an objective of *“A healthy and safe environment within the District and maintenance and/or enhancement of amenity values which the community wishes to protect”*, and a policy *“ To avoid, remedy or mitigate the adverse effects of activities on amenity values”*. Specific issues concerning residential areas include *“Loss of character and degradation of amenity values from inappropriate development and activities”*. The objective for urban areas is to protect that character and those values – *“The sustainable management of urban areas which maintains and enhances both the character of each township and the environmental quality and attributes of neighbourhoods”*.

It is crucially important that Council use District Plan mechanisms, and other means, to protect and maintain those environmental qualities.

It is also crucially important that Council use District Plan mechanisms, and other means, to provide for quarrying and mining activity in the District.

Quarrying and mining activity (“Q&M”) is a major economic activity nationally, and an important social and economic activity for the District. It extracts natural resources from the ground. Our society and economy relies on that extraction. It is fundamental to the efficient operation of our economy.

As examples of the central place of quarrying and mining activity in our society and economy, national production statistics from 2002 show (the source for this and the following statistical information is the website for the Crown Minerals section of the Ministry of Economic Development):

- Gold: 9.77 tonnes produced. Value: \$212m.
- Silver: 28 tonnes produced. Value: \$9m.
- Magnetite (ironsand): 1.7m tonnes produced. Value: \$30m.
- Coal: 4.4m tonnes produced. Value: \$319m.
- Limestone and marl for cement: 1.7m tonnes produced.
- Limestone and marl for agriculture: 2.7m tonnes produced.
- Limestone and marl for industry: 865,000 tonnes produced.
- Rock, sand and gravel extraction for building: 8m tonnes.
- Rock, sand and gravel extraction for roading: 18.5m tonnes.
- Sand extraction for industry: 1.5m tonnes.

The District Plan recognises the importance of Q&M as a socially and economically important land use activity. It has policies that include: managing land and soil, where it is used for productive purposes, “...in a way that avoids unreasonable limitations or restrictions on existing activities and maintains future options for uses of that land”; and “To provide for the extraction of land resources in a manner which avoids or mitigates any adverse environmental effects”. It recognises that

“...the District relies, to a significant extent, on the extraction of certain land resources, such as through quarrying and aggregate mining. Such activities are fundamental to the successful and efficient development of the economy and our way of life”.

Nationally, Canterbury has far greater reserves of gravel and sand than any other district. Those reserves extend a small way into the Hurunui District, in the south-east. It appears that the only towns that would be proximate to those reserves are Amberley, Amberley Beach, Leithfield and Leithfield Beach.

Current information suggests that the Hurunui District possesses few other resources to such an extent that they would be extracted in commercial scale Q&M. It has no significant quantities of coal or gold, no “metallic mineral” deposits (eg, copper, mercury, tin), and no “industrial mineral” deposits (silica sand, limestone, phosphate). The only other significant Q&M activity appears to be limestone extraction. The Council understands that this is not occurring in the District closer than 1-2 kilometres from any residential area.

From that information, it appears that the impact of a District Plan change relating to Q&M near residential activity will be principally confined to sand and gravel extraction activities in the Amberley and Leithfield areas. The environmental, social and economic benefits and costs of any change are most likely limited to those communities, and to the current and possible future operators in that area. There are currently two quarry operators proximate to Amberley Beach.

Any expansion plans of those businesses would be directly affected by any change, as would some residential activity at Amberley Beach.

Definition of Quarrying and Mining

“Quarry” is defined in the District Plan (Part D, Interpretation) as “...*means an open surface excavation for the extraction of stone, sand, gravel, and other building materials*”.

“Mining” is defined in the District Plan as “...*means the use of land and buildings for the primary purpose of the extraction, winning, quarrying, excavation and/or associated processing of minerals; and includes prospecting and exploration*”.

These definitions include a wide range of activities, at various scales. They would include:

- A farmer digging up 2-3 cubic metres of gravel for a farm track;
- A landowner excavating large stones on a small scale for landscaping a garden on her or his property;
- A landowner selling on a small scale from a gravel pit on her property, while the primary purpose of the land is something else;
- Removal of gravel from a riverbed adjacent to a town to reduce a flood risk from gravel build-up in the riverbed;
- Gold mining;
- Coal mining, either open cast or from tunnelling;
- Blasting rocks to extract them;
- Rock crushing machines;
- Use of diggers and excavating machinery;
- Commercial aggregate and sand extraction. This can vary from small operations with single excavators and few truck movements, to large areas with numerous excavators and dozens of truck movements each day;
- “*Prospecting*” and “*exploration*” in the definition of “*mining*” of themselves include a wide range of activities. At one end of the scale, these are examining and tapping rocks, and minor drilling of rocks. It could include “trenching”, in which a trench is dug for short term exploration of aggregate resources, and filled in after a day or two. At the other end of the scale is “bulk sampling”, in which a large excavation occurs over a wide area in order to gauge the level of sub-soil resources.

Effects of Quarrying and Mining

The nature and extent of adverse effects of Q&M can be as variable as the activity itself. They could be:

- Nothing. Extraction of a small quantity of gravel by a farmer for use on a farm may have no adverse effects. Removing some boulders for landscaping a garden may have no adverse effects;
- Noise from a small excavator and a dozen truck movements per week, for a landowner selling gravel or stones from a property. That noise may not be heard, or may not be quantifiable above general road noise;
- Noise from traffic movements, excavators, and aggregate piling activity from the same aggregate extraction activity conducted on a much larger scale. The noise effects include those of engines, with truck and machinery movements; the rumbling and rattling of excavators and excavator tracks; the rattling of stone against metal when sand or aggregate is scooped up and dumped into trucks or stockpiled; the crashing sound of aggregate piling.
- Vibration and explosion noise from blasting. Explosives may be used to extract rock;
- Noise from crushing rock. Rock crushing machines cause rocks to split with an explosive sound;
- Dust from aggregate extraction activity;
- Heavy vehicle traffic movements;
- Adverse landscape effects. There can be a loss of visual amenity caused by the removal of trees, bushes and grasses – a rural landscape – and its replacement with an open site with bare gravel pits, piles of aggregate, ponds and machinery;
- Other environmental effects. The activity could entail clearance of bush areas, or loss of habitat areas for native or endemic plants, animals or birds – for example, nesting sites for birds in riverbeds.

The possible adverse effects vary in several ways.

First, they vary depending on the scale of the activity. In small scale Q&M activity, these amenity effects may be nil, or no more than minor, such as where a farmer is extracting aggregate on a small scale for on-farm use. The status of the activity as discretionary or non-complying would generally have no impact on that activity as it would in most cases be permitted as a “temporary activity” as that term is defined in the District Plan.

Activities likely to have a more significant effect are where the activity is occurring on a larger scale for commercial purposes. Large scale operations simply increase the scale, intensity and duration of the same effects. Instead of no truck movements, there may be 20 per day. Instead of one digger operating, there may be three. The amount of landscape affected increases.

Secondly, the adverse effects may vary depending on the nature of the activity. Crushing machines and blasting operations create qualitatively different effects. Those effects are associated with hard rock quarrying. They are not associated with sand and gravel extraction activities. Rock crushing machines cause rocks to split with an explosive sound. Explosives are used to separate and remove rock. Blasting creates explosion noises, and vibrations. The vibrations can travel over wide areas, depending on the geology of the site. If located proximate to people, the adverse effects of these hard rock extraction activities are likely to be qualitatively worse than aggregate extraction activities that do not include those effects.

Thirdly, the problem of some adverse effects of Q&M may vary depending on the distance of the activity from others who experience the effects, and the nature of the receiving environment. The noise and/or vibration effects of Q&M activity still exist, regardless of where the activity occurs; but the extent to which those effects are a resource management issue varies depending on the distance of the activity from people who may experience those effects adversely, and the level of other similar effects in that receiving environment. Distancing of the source of the adverse effects from sensitive environments is almost certain to reduce the extent to which those effects are a problem. The problem of noise is likely to be less if the receiving environment has high ambient noise levels.

Fourthly, the extent of the adverse effects vary according to the extent and nature of mitigation measures undertaken by the Q&M operators. Those mitigation measures may be voluntary, or they may be imposed as conditions of resource consent. It is relatively common throughout the country for detailed and extensive conditions to be imposed on resource consent for Q&M activity. The conditions may include:

- Hours of operation;
- Days of operation;
- Hours between which particular machines can be used;
- Numbers of machines;
- Numbers of truck movements;
- Dampening to reduce dust;
- Servicing of machines to reduce noise;
- Landscaping;
- Numbers and times of any explosions per day, or per week;
- Precise locations of buildings and digging;
- Size, shape and location of earth bunds to mitigate noise;
- Maximum consented noise levels;
- Noise monitoring tests;
- Maximum airblast levels from explosions;
- Indoor housing of particular machines;
- Alterations of machinery to have reversing “beeping” replaced by reversing lights;
- Size of aggregate stockpiles.

Those mitigation measures and conditions can be imposed on an activity regardless of whether the activity is classified in the District Plan as discretionary or non-complying.

Generally, however, due to the nature of Q&M conducted on a commercial scale, mitigation measures would seldom wholly “internalise” all those adverse effects to the site.

Some of the positive effects of Q&M have been outlined above. It is an economically and socially essential activity. It provides a social need. Aggregate and sand extraction, for example, is essential for making concrete, concrete blocks and roads. It provides the fundamental material for building roads and communities. It provides an economic return for the landowners and Q&M operators. It provides employment.

Q&M activity can also provide environmental benefits, through use of appropriate conditions on the grant of land use resource consents. Conditions for ecological restoration work during, and on completion of, Q&M activity can provide for environmental enhancement. The result can be reinstatement of native bush, wetlands or pond habitats for native birds where none existed before the activity commenced. An example of this is the ecological restoration work, native plantings, and wetland creation undertaken by Christchurch Ready-Mix at their quarry near Amberley Beach.

Current Rules for Q&M

Q&M is not permitted anywhere in the District without resource consent, regardless of the nature, location, or scale of the activity. The current rules for Q&M in the District Plan categorise it in two ways. How it is categorised determines the matters that are considered when the Council is deciding applications.

The District Plan classes Q&M as a discretionary activity in all but one part of the District (rule A1.4(a)). This means that:

- Under s77B of the Resource Management Act, a resource consent is required for the activity; and the application for consent can be declined or granted with or without conditions; and the activity must comply with any standards, terms or conditions in the District Plan.
- Under s104(1) of the Act, when considering any application for resource consent, the Council must, subject to the purpose and principles of the Act, have regard to: any actual and potential effects on the environment of allowing the activity; any relevant provisions of plans and policy statements; and any other matters that the Council considers relevant and reasonably necessary to decide the application.
- When the Council is forming an opinion on whether to notify an application, and on whether to grant resource consent, the Council “...may disregard an adverse effect of an activity on the environment if

the Plan permits an activity with that effect” (s104(2) of the Act). This is referred to as the “permitted baseline test”. It means that the Council will generally disregard the part of the adverse effects that would be caused by non-fanciful rural activities permitted on the site. So if the quarry was to have adverse effects little different from those that can occur from normal rural activity, then the decision would almost inevitably be that the activity has no, or no more than minor, adverse effect.

- In assessing applications, Council must consider the assessment matters for that type of application that are set out in the District Plan. Those assessment matters are attached as Appendix 1.
- When Q&M is classed as discretionary, the Council can grant consent even if the activity is contrary to District Plan policies, and/or has more than minor adverse effects.

Open ground excavation activity will also be classed as a discretionary activity if it does not meet the minimum standards for permitted earthworks in the Plan (Rule A1.2.15).

There is one part of the Hurunui District in which some Q&M activity is not classified as a discretionary activity. Rule B1.4.1 provides that “*primary industry*” is a non-complying activity in urban areas. By Appendix E3 of the District Plan, “*primary industry*” includes “*explosive manufacture and storage*” and “*stone and mineral crushing*”. The result of those provisions is that Q&M involving storage of explosives or crushing rocks is a non-complying activity in urban areas.

That restraint is most likely to apply to hard rock Q&M, as that involves explosives and crushing of rocks. The constraint is unlikely to apply to sand and aggregate extraction, as those activities seldom involve use of explosives and crushing.

When Q&M is classed as a non-complying activity the same considerations as those set out above for discretionary activities apply when Council is deciding the application (including the “permitted baseline test”). But the application must also pass another test. Under s104D of the Act, Council can grant consent only if it is satisfied that:

- the adverse effects of the activity on the environment (other than effects on a person who has given written consent to the application) will be minor; or
- the activity will not be contrary to the objectives and policies of the District Plan.

That test will be passed by the applicant who establishes either that the adverse effects of the Q&M will be minor, or that despite those more than minor adverse effects, the Q&M activity at this site is not contrary to the Plan. An applicant could attempt to meet the second part of that test by establishing the relative importance of extraction of the resource at the particular site, having regard to its scarcity and the importance of the resource for the district, region or nation.

The District Plan has no rules that relate to residential activity establishing close to Q&M activity. It does have those rules for some activities. For both intensive farming and sewage treatment facilities, there are reciprocal type rules: that is, rules A1.2.4 and A1.2.6 provide that it is not a permitted activity for intensive farming or sewage treatment activities to establish within 500m of a residential activity; and it is not a permitted activity for a residential activity to establish within 500m of an intensive farming or sewage treatment activity.

Context in District Plan Process

The rules in the District Plan relating to Q&M activity have not changed since the Proposed District Plan was notified in 1995.

The Plan has never had any rules that required resource consent if people want to live close to Q&M.

No submissions on the Proposed Plan opposed the activity status for Q&M as being discretionary in most cases, and non-complying for some Q&M if located within urban areas. Two supported those rules: one by the Federated Mountain Clubs; and one by New Zealand Minerals Industry Association.

There were no submissions on the assessment criteria for Q&M. Those assessment criteria are set out in Appendix 1.

In the year 2000 Winstones applied to the Council for resource consent to establish a quarry within 500m of the Leithfield Beach urban area.

Local residents opposed the application. On 29 June 2000 a petition of over 400 signatures was presented to Council. The petition sought a variation to the Proposed District Plan in order to:

- *“Specify mining and quarrying as non-complying activities within 500m of urban areas, and*
- *“Include objectives and policies to protect urban environments from the effects of such activities”.*

Council considered the requested variation and decided that the existing discretionary activity status for Q&M activity was most appropriate. But it publicly notified a variation to the Proposed Plan that amended the assessment criteria for Q&M by adding one bullet point, reading: *“The timeframe and management of the rehabilitation process”* (see **Appendix 1**).

The Council received approximately 190 submissions on that variation to the Proposed District Plan. Its decision records that many submissions were by Leithfield and Amberley Beach residents, who emphasised the impact on them of Q&M activity, and who repeated the petition’s request. Legal advice obtained by Council advised that the scope of the notified variation meant that such a change to the notified variation was not possible. The Council’s

decision on the submissions therefore added further assessment criteria (see **Appendix 1** for the new assessment criteria, which are now C1.2.4(a)(x) in the operative Hurunui District Plan). The decision also records:

“The Council considered the concerns raised by submitters, which were very similar and were based on the environmental effects that quarrying and mining can cause.

Especially of concern, and what was emphasised to Council at the hearings, was the effects quarrying and mining can have on the health and welfare of the local community and residents in terms of dust, noise and traffic safety. Many of the submissions went into substantial detail relating to the effects of such activity. This led the Council to look beyond the District Plan standards for individual effects to considering a holistic view of the activity and its general effects on quality of life for communities....

The submission process and hearings have provided a valuable mechanism for the community to express their feelings on the matter of quarrying and mining from an individual basis.

In recognition of the concerns expressed through submissions on Variation 37, the Council considers that a further variation or Plan change to the District Plan rules relating to quarrying and mining is preferable. Those rules would introduce a 500m buffer between urban areas and quarrying and mining activities where outside that buffer quarrying and mining would remain a discretionary activity, and inside 500m quarrying and mining would be provided for as non-complying.

Due to time constraints and given that local body elections are in October the Council has determined that a recommendation will be made to the new Council elect to initiate the change to the District Plan provisions on quarrying and mining as outlined above”.

The outgoing Council made that recommendation. On 31 January 2002 the newly elected Council resolved *“That Council approve a plan change be undertaken to review the rules relating to quarrying and mining within the district after the District Plan is operative”.*

In December 2003 Council approved an officers’ recommendation that consultation on a possible Plan change be widened to include the possibility of a buffer distance that would require resource consent for residential activities locating close to Q&M activity, so as to provide for reverse sensitivity effects. Council accepted that recommendation.

Consultation on Proposal

The views of the community have already been expressed in several ways.

The first is by the lack of submission on the existing Plan provisions in the Proposed District Plan process. This can be interpreted as indicating that at that time there was a lack of concern with the current provisions. But that cannot be given much weight now as it was nine years ago.

Secondly, it is arguable that community concern with the adverse effects of Q&M could have been expressed by complaint to Council or quarries about existing quarries. Enquiries of Council complaint records show three complaints about the activities of Amberley Sand since May 1996, when consent was granted for expansion of the quarry. The complaints were about dust, operating outside the hours of resource consent, using the incorrect exit, and noise. The Council is not aware of any complaints about any other Q&M activity.

Quarry operators advise that they have received no direct complaints.

However, people know that existing quarries have resource consents. Absence of complaint is not the same as absence of concern with adverse effects caused by the activity. Absence of complaint may indicate that there is no concern about the activity; or, it may indicate that people believe complaint to be pointless, either because they believe it to be ineffectual, or because they believe that the adverse effects are permitted by the consent.

Thirdly, the petition to Council is a strong expression of the views of some in the community.

In a District with approximately 5,500 ratepayers and 10,000 residents, a petition signed by approximately 10% of ratepayers or 5% of residents is a significant expression of views on the most appropriate Plan provisions for Q&M (assuming that the signatories were residents and ratepayers).

Fourthly, it is considered that the views of the previous Council can be regarded as an expression of community views. It was the members of that Council who heard the submissions on the variation and were struck by the force of those submissions. They concluded that it was in the interests of those they represented for Q&M to be non-complying when located within 500m of urban areas.

Fifthly, the Council sought the views of those in the District, and of Q&M interests in the District, when this Plan change was under preparation. A notice was run in a local newspaper, inviting anyone who was interested to obtain a copy of a draft report and to comment on the possible changes. A draft officers report was available on the Council's website. Council received one submission on the draft change, from Mr Roche of Leithfield Beach.

Council wrote to the NZ Institute of Quarrying and the Aggregate and Quarrying Association inviting them to enter consultation on the possible changes. They did not respond.

The Council also invited consultation with Winstone Aggregates (see below), KB Contracting and Quarries Ltd; and Fulton Hogan Canterbury Ltd. No communication was made by the latter two companies. Council has also consulted with Mr W Jackson, a landowner near Leithfield Beach. Council understands that Mr Jackson opposes any District Plan change, but he has not made a detailed response on the draft officers report.

Consultation has occurred with the Crown Minerals section of the Ministry of Economic Development, ChCh Ready-Mix, and Canterbury Sand Ltd / Winstones.

Consultation with these interests occurred both before and after preparation of a draft officers report to Council. After initial feedback, the Council sought comment on a draft Council report prepared on the matter.

The communications with the Crown Minerals section of the Ministry of Economic Development have been with Mr Rob Robson, Senior Advisor, Petroleum and Mineral Policy. Mr Robson has confirmed that the views expressed in his communications are those of Crown Minerals, of the Ministry of Economic Development, and of the Associate Minister of Energy, the Hon Harry Duynhoven. He has confirmed that, as a result of the division of ministerial responsibility for economic development and energy, the only affected minister is the Associate Minister of Energy.

The reply by Crown Minerals states :

- 500m buffer zone is appropriate for rock extraction;
- 200m buffer zone is appropriate for sand extraction;
- “Discretionary” is an appropriate activity status to achieve that in an effects-based plan; “restricted discretionary” status would be more in the District’s economic interests;
- There is no justification for a change in the activity status to non-complying;
- Effects should be measured at the edge of the buffer zone;
- It is appropriate for resource consent to be needed to establish residential activity within 500m of Q&M activity;
- The changes to the policies proposed in the draft report go too far, in that they would effectively render any Q&M activity in the non-complying area a prohibited activity;
- The draft s32 report is deficient as it does not place a dollar value on the assessment of economic benefits and costs;
- The current definition of “*mining*” in the District Plan includes prospecting and exploration; but those activities have low environmental impacts, and should be permitted;

- It supports the proposed change that would require discretionary resource consent for residential activity locating within 500m of a quarry or mine.

Canterbury Sand Ltd is a joint venture with Winstone Aggregates. The representative of Canterbury Sand Ltd who has communicated with Council on the possible Plan change is Mr Alex Grove. He is an employee of Winstones. Winstones did not separately respond to Council's letter to it dated 22 December 2003 inviting it to consult on the possible change. Mr Grove's response is supported by a letter from a planning consultant, Colleen Crampton, on behalf of Winstone Aggregates; and by a geologist employed by Winstone Aggregates.

The reply by Canterbury Sand/ Winstone Aggregates on the possible District Plan change states:

- Canterbury Sand Ltd has operated on Amberley Beach Rd about 350m from the nearest house for about two years without complaint about noise;
- It is concerned that a change in activity status will restrict future extraction activities, when reserves within the consented area are exhausted and if it seeks a new consent for another area adjacent to the existing plant;
- Course sand suitable for ready-mix concrete and particularly concrete blocks is a scarce resource, with few suitable extraction sites. The deposits in the Hurunui District are generally limited to a coastal strip from Leithfield Beach to the Waipara River. Within that area, there are few sites suitable for extraction;
- Continued availability of local sand is beneficial for the district, as imported sand would add to costs for local consumers;
- Would prefer effects-based standards in the Plan, instead of buffer distances;
- Suggest resource consent needed for residences if located within 200m of a quarry boundary;
- Rules should be reciprocal for Q&M effects, and reverse sensitivity effects;
- In the range of activities encompassed by the Q&M definition, sand extraction is a low-key operation when compared to a large scale quarry with blasting operations and a crushing plant. If any change to the District Plan is to occur, it should differentiate between hard rock Q&M and sand/gravel extraction Q&M, as the effects of hard rock Q&M are significantly worse ;
- They would prefer no change to the activity status. But if there is to be a change to non-complying activity status, it should differentiate between the buffer distances for hard rock Q&M and other Q&M for the above reasons. The buffer distance for sand and gravel extraction activity should be no more than 200m, while 500m may be appropriate for hard rock Q&M;
- That if a non-complying separation distance is used, it should relate to residential areas rather than to urban areas;

- They do not accept a proposition in the draft officers report that the impact of any change in status will only be for activities that have a more than minor adverse effect.

The reply by Christchurch Ready-Mix (by its solicitors):

- Aggregate supplies in commercially available quantities are a relatively scarce resource. The best areas for gravel and sand extraction are often at the coast, leading to conflict with urban areas. Discretionary activity status is appropriate to deal with those conflicts;
- Discretionary status is consistent with other districts in Canterbury and strikes the right balance between recognising the importance of the resource for the economy, and appropriately locating activities and controlling effects. Conditions on consent are able to mitigate adverse effects;
- Sand and shingle play an important part in everyday rural life;
- It may be appropriate to distinguish sand and gravel extraction from more intensive mining;
- Noise levels of mineral extraction activities “...*have been shown to be no worse than agricultural machinery that is already operating in the rural environment*”;
- Discretionary status of the resource consent application at Leithfield Beach would have been sufficient to deal with the adverse effects, including by declining the application;
- The residents’ concerns when opposed to a new quarry at Leithfield Beach and seeking a change to the District Plan were prompted by possible future activity, not current Q&M activity. The Council’s basis for a Plan change would have been stronger had complaints been made about existing operations. There have been no complaints made about Ready-Mix’s existing operations.

Mr Kevin Roche, a Leithfield Beach resident, has commented on the draft Council report. He:

- Supports the recommendation in the draft report for a 500m separation distance between Q&M and urban areas;
- Seeks more detailed assessment criteria, such as for the Q&M zone in the CCC proposed plan (Council understands that the Q&M zone in the proposed CCC Plan deems Q&M activity to be *permitted* if it meets particular standards; and that it is those standards to which Mr Roche is referring).

None of the above replies disputed the current status of Q&M as discretionary throughout the District, and sometimes non-complying in urban areas (with the exception of the submission by Crown Minerals that restricted discretionary activity status would be more consistent with the District’s economic objectives). It can reasonably be concluded that Q&M conducted on a commercial basis, or involving crushing or explosions, is generally accepted by the operators to have adverse effects that warrant differentiating it as an activity from other rural activities.

The Council also consulted with neighbouring Councils, and with the Regional Council. The neighbouring councils made no comment on the proposed changes. The Regional Council supported the change set out in the draft report, but sought addition to the assessment criteria for Q&M applications to include “*the maintenance of indigenous biological diversity*”.

Internal consultation has been by way of discussion of the changes among Council officers.

The proposed District Plan change publicly notified here differs from that proposed in the draft officers report on which Council sought consultation and feedback. Council’s preliminary view changed after this consultation. The main points arising from the consultation that Council has incorporated into the District Plan change are:

- To recognise that hard rock quarrying and other Q&M activity have differing levels of effects; that the adverse effects of hard rock quarrying are generally more adverse than those of other Q&M; and that for those reasons, the explanations to policies ought to acknowledge that separation distances for hard rock quarrying should be greater than that for other Q&M;
- To amend the rule for applications for Q&M activity so that it refers to residential areas, rather than urban areas (ie, so that the separation distance for the non-complying activity is not between the Q&M and business or industrial zones);
- To delete the qualification to the Q&M rule that limited it to “commercial” Q&M. That qualification was intended to avoid changing the status of small-scale temporary activity by landowners for land management purposes. But the qualification to the rule is unnecessary, as temporary activity by landowners that meets the definition and standards in the Plan for temporary activity is permitted, despite the Q&M rule. Reference to “commercial” Q&M has been retained in the explanation to policies, as it assists understanding the focus of the policies. It has also been retained for the rule relating to residential activity locating proximate to Q&M, as it would be inappropriate for that rule to relate to temporary activity, or small-scale Q&M for land management purposes;
- Residential activity within existing urban areas has been excluded from the reverse sensitivity rule. That exclusion exists as the rule is intended to control the effect of residential activities being created where they did not previously exist, near Q&M activity, and putting pressure on that activity. Its focus is on people building within rural areas near Q&M activity. If it is a new dwelling within an existing urban area, there are already presumably a large number of dwellings within that 500m area from the Q&M. The “reverse sensitivity” effect is practically unchanged by there being another dwelling within that area.
- That it is inappropriate for amendments to the policies, explanations to policies and anticipated environmental results to be so particular on separation distances that no Q&M activity could pass the threshold test in s104D of the Act. The proposed District Plan change should not

render Q&M a defacto prohibited activity within the non-complying area. The policies, explanations and anticipated environmental results should be framed so that in some circumstances, resource consent can be granted for Q&M activity within that area;

- That it is appropriate for the non-complying area for Q&M establishing proximate to residential areas to be the same as for residential activity establishing proximate to Q&M.

Relevant District Plan Objectives and Policies

The District Plan objectives and policies relevant to the relationship of Q&M with urban areas are attempting to meet several, sometimes competing, District needs and interests: the sometimes competing interests of rural and residential activity; the social imperative for extraction of resources while maintaining amenity values; efficient creation of wealth from economic activity while maintaining community wellbeing; encouraging urban consolidation while protecting special character of small townships.

The Plan facilitates landowner freedom to engage in productive land uses.

Policy 1.1 is to provide for land-based activities, while avoiding or mitigating any adverse effects on the life supporting characteristics of soils; and **Policy 1.3** is of managing productive land uses in a way that avoids unreasonable limitations or restrictions on existing activities and maintains future options for uses of that land. The explanation to the latter policy states that

In order to meet the reasonably foreseeable needs of future generations, Policy 1.3 is aimed at enabling investment and change in the use and management of rural land and soil resources. Managing the effects of rural activities must be done in a way that does not unreasonably limit change and innovation in rural activities over time. This applies whether the area is part of the high country, the general rural area, or an area with special land, soil and other physical qualities and characteristics such as the Waipara Wine Growing Area.

However, depending on the area and its existing and future land use characteristics, the policy may need to be interpreted in slightly different ways throughout the District. For example, in areas of productive use such as the Waipara Wine Growing Area, the management of cross-boundary effects of intensive activities may have to be given more emphasis, while in the high-country, protection of the life sustaining capacity of the soil resource may be of more significance. This policy is closely linked to others which ensure the physical protection of the land and soil resource”.

Discretionary activity status for Q&M throughout the rural areas would be sufficient to meet policy 1.1. That activity status can “provide for” Q&M as a productive land-based activity. Adverse effects on the life-supporting

capacities of soils can be avoided or mitigated by appropriate conditions requiring restoration work during and on completion of the activity.

Policy 1.3 does not mean that productive land uses such as Q&M activity should be unfettered. It speaks of “managing” those activities, and foresees *reasonable* limitations on them. The example given in the explanation of the Waipara Winegrowing Area suggests that in an area such as that of sand and gravel resources near Amberley and Leithfield, the cross-boundary effects of Q&M as an intensive activity is given the most emphasis under this policy.

Having particular buffer areas between residential activity and existing Q&M, and between existing residential areas and new Q&M activity, is consistent with that approach of managing cross-boundary effects. However, cross-boundary effects can also be managed through appropriate use of discretion over Q&M as a *discretionary* activity throughout the District. Applications can be declined if Council considers that the activity is so close to a residential area that the adverse effects are not adequately mitigated; or conditions can be imposed to mitigate those cross-boundary effects.

Change to the permitted status of residential activity establishing near existing Q&M activity seems to be consistent with these policies. It assists to manage cross-boundary effects. But either discretionary or non-complying activity status for Q&M activity locating near residential areas is consistent with these policies.

The Plan expressly encourages quarrying and mining.

Policy 1.7 is “*To provide for the extraction of land resources in a manner which avoids or mitigates any adverse environmental effects*”. **Policy 1.8** is “*To require the rehabilitation of sites where extraction of land resources has occurred*”. These policies are explained as being recognition “...*that the District relies, to a significant extent, on the extraction of certain land resources, such as through quarrying and aggregate mining. Such activities are fundamental to the successful and efficient development of the economy and our way of life*” (1.8, Explanation). The explanation notes that minimising the loss of land resources and rehabilitation of the land when extraction ends can be achieved through the resource consent process and imposing conditions.

Council considers that a Plan change that requires resource consent for sensitive activities locating proximate to Q&M activity is consistent with this policy.

Discretionary activity status for Q&M in rural areas appears more consistent with these policies than partial non-complying activity status. However, the policies do not address any adverse effects of Q&M other than effects on the land. This Plan change therefore adds to the explanation to these policies by referring to the possible adverse effects of the activity and referring to subsequent policies that address those issues.

The Plan has an objective of restricting activities that cause environmental pollution.

Issue 3 is that there is a potential for environmental pollution to occur as a result of the expansion or intensification of some activities within the district, or from the introduction of new activities. It expressly refers to noise and vibration as pollution; however, it implicitly excludes these from the definition of “environmental pollution” by stating that they are dealt with under several other issues in the Plan. Objective 3 is *“To avoid remedy or mitigate the adverse effects from environmental pollution in the District and to maintain or enhance the quality of the Hurunui environment”*. Policy 3.2 under it is *“To ensure that activities producing discharges to water and air are managed to avoid or reduce their adverse effects on the District’s residents and residents of other districts”*.

The focus of this issue, objective and policy appears to be on pollution in the limited sense of discharges to air, land and water.

Discharge effects of Q&M activity, whether to groundwater, or dust to air, are generally adequately addressed by discretionary activity status for Q&M activity near residential areas. A possible exception would be if discharge of dust to air cannot be adequately avoided, remedied or mitigated, and would cause such an adverse effect on the nearby residential area that non-complying activity status would be justified. Council considers that to be the case for commercial sand and aggregate extraction activities. Those activities tend to create dust as a discharge to air, unless access tracks, stockpiles and work areas are adequately dampened. It is considered that this issue, objective and policy is one justification for rules that promote a separation distance between Q&M activity and residential areas, by use of non-complying activity status (this is also discussed in relation to policy 10.10, below).

The Plan seeks to protect amenity values, and healthy, safe living environments.

Issue 10 is that *“The quality of life for residents in the District is dependent on a number of aspects about our environment which, together, contribute to that quality – without adequate management to maintain or enhance a level of amenity appropriate to each area, the environmental quality of the District could be reduced”*; and states that *“The particular issue for the District relating to environmental amenity is that inappropriate development and inadequate protection could reduce the District’s high standard of environmental amenity”*.

The explanation to that issue refers to the need to control activities with adverse effects on the quality of the environment without “unduly constraining the rights of individuals to use their own properties”. It expressly refers to noise levels and air discharges, including dust, as factors that *“...have a significant impact on environmental health and amenity values...”*.

Council considers Q&M to be an activity that does have adverse effects on the quality of the environment. Those adverse effects have potential to

adversely affect the environmental quality of residential areas. Q&M is an activity to which this issue relates.

The explanation to issue 10 also refers to reverse sensitivity effects of sensitive activities locating near, and possibly placing unreasonable constraints on, existing rural activities. Council considers it most appropriate to expand and change that part of the explanation. It currently refers to the Waipara Winegrowing Area as an example, but does not refer expressly to the other activities for which there may be reverse sensitivity effects – in particular, Q&M activity. The proposed change to this explanation is set out above.

The objective under issue 10 (Objective 10) is “*A healthy and safe environment within the District and maintenance and/or enhancement of amenity values which the community wishes to protect*”. That objective is supported by several policies relevant to Q&M activity.

Policy 10.1 is “*To foster environmental health for the wellbeing of the District’s residents*”.

The Plan acknowledges that noise and dust can have an adverse impact on environmental health and amenity values (see above). Council considers that rules that are intended to control the effects of Q&M activity are consistent with this policy. Those rules can foster environmental health by generally keeping the sources of those effects away from residential areas.

That separation designed to foster environmental health can be achieved by either discretionary or non-complying activity status. With discretionary activity status, Council can consider whether resource consent should be granted for the activity in the particular location, having regard to the adverse effects of the activity on the environmental health of neighbouring areas. However, Council considers that non-complying activity status within a particular distance of residential areas would better maintain that separation distance of the source of discharges from residential areas, and thereby be an improved means of fostering environmental health and of achieving policy 10.1.

Policy 10.5 is “*To avoid, remedy or mitigate the adverse effects of activities on amenity values*”. The explanation to this policy states that “*The level of amenity in the district is important to the quality of life enjoyed by people living and working in the area*”; and that “*In most cases environmental standards in the Plan can be applied as the most effective method to protect those amenities*”. The standards listed as applicable to this policy include vehicle activity, noise standards and visual amenity standards.

Q&M as an activity is treated in the Plan as a special case. It is one of the few activities in rural areas singled out in the Plan as an activity, in that resource consent is needed for it regardless of whether it complies with those standards. The implicit assumption behind treating it as an activity, rather than by means of applying activity standards, is that its adverse effects

warrant requiring resource consent for it in all cases. That applies regardless of whether it is classed as a discretionary or a non-complying activity. Either classification achieves this policy.

Policy 10.9 is “*To control noise emissions at levels acceptable to the community*”. “Noise”, for the purposes of this policy, is stated as “*including vibration*”. The methods and explanation to this policy refer to environmental standards for noise as being the means to achieve this policy. The explanation also refers to standards in the Plan for airblast levels, and does so expressly in relation to quarries using explosives.

However, as noted above, Q&M activity is identified in the Plan as a special activity for which resource consent is required regardless of whether it is meeting those noise and airblast standards. A partial reason for this is found in the explanation that “*Conversely, noise from activities which provide little benefit to an area or which is not an accepted part of the character and functioning of an area can be considered to be unacceptable*” (emphasis added). Council considers that the noise and vibration effects of Q&M activity – and most significantly, hard rock Q&M activity – is not an accepted part of the character and functioning of the residential areas within and adjoining the District’s small townships. In particular, those townships that are beach communities or that are not on SH7 or SH1 have a special amenity that derives from their small size, relative absence of business and industrial areas, quiet, peace and tranquillity. It is those special characteristics that attract people to reside in those communities. The noise, including vibration, of Q&M activity would be out of place in those communities.

This Plan change includes changes to this policy, explanation and the anticipated environmental results under it. Those changes are set out above. They recognise that in some cases, regardless of whether noise meets the standards in the Plan, it may be of levels unacceptable to the community.

The change to the policy expressly recognises that a separation distance between a noise-emitting activity and sensitive activities is desirable if noise levels cannot otherwise be maintained at a level acceptable to the community. The change to the explanation expands on that, expressly in relation to Q&M activity. It acknowledges that the separation distance may be desirable for both the effects of Q&M, and for the “reverse sensitivity” effects of residential activities locating near Q&M. The change to the anticipated environmental results specifies attaining that separation of activities in most cases as a desirable result.

While both discretionary and non-complying activity status for Q&M near residential areas can achieve that policy (both currently, and as amended by the change), Council considers that the most appropriate activity status to achieve it is non-complying. That activity status provides an extra protection against unacceptable noise (including vibration) for those small communities. This is on the basis that noise, including vibration, generally decreases with distance from the source, subject to any sub-soil conditions that affect the

dissipation of vibration. The separation distance helps avoid and mitigate the adverse effects of the activity.

Other mitigation measures are available regardless of whether the activity is discretionary or non-complying – such as controls on hours of operation; servicing of machinery to reduce noise; housing of machinery; replacing “beeping” reversing signals with reversing lights; earth bunds to reduce noise; controls on frequency of explosive events.

Policy 10.10 is “*To ensure that air quality within the District is maintained or enhanced to protect amenities*”. One of the specified means to achieve that policy is “*Use and application of systems and methods which minimise odour and dust*”. However, as discussed above, Council considers that systems and measures to control dust that would otherwise be emitted from commercial sand and aggregate extraction Q&M are unlikely to be wholly effective, and could have adverse effects on adjoining sensitive activities. It considers that non-complying activity status is appropriate for Q&M near residential areas, partly for this reason.

The Plan seeks to avoid conflict between intensive rural activities and residential uses, while providing for both.

Policy 10.6 is “*To manage subdivision, residential and other development adjacent to intensive productive rural activities in a way that avoids or mitigates significant potential cross-boundary adverse effects on amenity values, without unreasonably inhibiting the continued use and development of existing productive rural land uses*”.

This policy and the explanation to it refer to “reverse sensitivity” effects. The methods for implementing it include “*District Plan rules including standards for separation distances between residential activities and other potentially incompatible activities*”.

This Plan change amends this policy and explanation. The reason for that change is to improve the clarity of the policy, to carefully distinguish the two situations covered by it (adverse effects of intensive activities; and reverse sensitivity effects), and to specify the activities – including commercial Q&M – that it relates to.

The Plan expressly protects the character and amenity values of urban areas.

This is partly discussed above in relation to environmental amenity. But the District Plan also has a set of issues, objectives and policies expressly in relation to urban areas as an environment of special concern.

Issue 16/2 is “*Loss of character and degradation of amenity values from inappropriate development and activities*”. The explanation to that issue is relevant. It states that:

“Amenity refers to those elements that people value as contributing to their quality of living environment. These elements can include the visual quality of their environment, such as outlook, private open space, and

the design and character of their neighbourhoods (buildings, open spaces and trees). It also refers to the general quality of the environment, and how it affects their health, safety and wellbeing. This may include the ability to enjoy their surroundings without objectionable odour, noise, and other nuisances. It also relates to on-site amenity values, such as having private open space and access to sunlight. All parts of the District have amenity values, but within urban areas, the proximity of development and activities to one another, with most sections unable to have wide buffer strips, creates the potential for even relatively innocuous activities to have adverse impacts on the amenity values of neighbouring properties, such as a large imposing building on a boundary....

Activities and development can have different effects, depending on where they take place within any one township. Activities may generate traffic, noise or visual effects that have a detrimental effect on the character of one area but not another. In particular, conflict can occur where industrial or commercial activities adjoin residential activities. Industrial and business activities can impact on the amenity of residential areas in terms of noise, odour, traffic, loss of privacy and scale of buildings. Industrial activities are often characterised by visually unattractive sites or structures”.

That issue, and the objective and policies under it, are directed at the “cross-boundary” effects of activities within urban areas, on urban areas. They do not adequately address the cross-boundary effects of activities in rural areas, on urban areas. The latter is one of the situations addressed by this Plan change. But the problems addressed by this issue are the same as for Q&M activity locating outside the boundary of urban areas, near the residential parts of those townships. If the Q&M activity is “inappropriate”, it can cause a loss of character and degradation of amenity values within the residential area. This can be by loss of outlook, noise, vibration or dust. The effects are those of an industrial activity of the type referred to in this issue.

Objective 16 is *“The sustainable management of urban areas which maintains and enhances both the character of each township and the environmental quality and attributes of townships”.*

Council considers that the sustainable management of urban areas includes managing the effects on those areas of activities in surrounding rural areas. This Plan change addresses some of those effects, and is thereby consistent with this objective.

Policy 16.3 is *“To allow for activities within residential areas, provided they meet identified environmental standards and values to protect the environmental amenity”.* The explanation to this policy notes that the character of residential areas varies between localities and neighbourhoods. The method specified in the Plan to meet this policy is to have rules that identify the residential areas, identify minimum standards for them, and have

a management system that “...controls activities which have the potential to generate significant adverse effects on these neighbourhoods”.

This policy is not directly concerned with activities outside of residential areas that have an adverse effect on activities within those areas. But the emphasis on controlling activities that have potential to have an adverse effect on those areas is relevant.

As noted above, environmental issues concerning potential adverse effects of Q&M on residential areas are probably practically limited to the environs of Amberley, Leithfield, Amberley Beach and Leithfield Beach.

Of those towns, Amberley Beach, Leithfield Beach and Leithfield have no areas zoned for industrial or business use. The towns are not on State Highways. Residents in them reasonably expect a level of amenity, in terms of absence of unreasonable noise, peace and quiet, that differs from that expected by residents in some other towns. Residents may have moved to these areas to obtain that amenity. They can reasonably expect the effects of non-fanciful rural activities; however, they may experience the effects of other activities in the rural zone particularly acutely. The adverse effects of industrial type activities such as Q&M may therefore have a particularly adverse effect on those small residential communities.

Again, and as noted above, both discretionary activity status and non-complying activity status for Q&M activity near residential areas are “controlling” potential adverse effects on the residential areas.

Policy 16.5 is “*To allow for activities within industrial areas, provided they meet identified environmental standards and values to protect the environmental amenity*”.

The explanation to this policy states that:

“The principal purpose of identifying the industrial zones within the urban areas is to ensure that the resources committed to such areas, both by existing industry or through public investment, are used efficiently on a sustainable basis. This policy seeks to maintain and enhance the characteristics of the District’s industrial areas as a method of enhancing the character of each township, and to ensure that activities are undertaken which meet minimum environmental standards.”

Industrial activities may impact upon the amenity of residential areas in terms of noise, odour, traffic, loss of privacy, scale of buildings and untidy sites, which are managed by compliance with environmental standards”.

The specified method of implementing policy 16.5 is rules that “...*identify industrial zones and provide for industrial activities which can comply with environmental standards for industrial areas, including protecting environmental amenity*”.

This policy is addressing the potential adverse effects of industrial activities within urban areas on residential activities within urban areas. It is not directly addressing the potential adverse effects of industrial activities outside of urban areas, on residential activities within urban areas. But the effects are the same if the proximity is the same, regardless of whether the industrial activity is outside of, or within, the urban boundary.

It is arguable that Q&M activity is not “industry” as this is defined in the District Plan. But the principles behind this policy apply equally to Q&M activity. The policy is directed at protecting the environmental amenity of residential areas from activity of that type. That protection should be available regardless of whether the activity is located outside of, or within, the urban boundary.

Both discretionary activity status and non-complying activity status for commercial Q&M activity near residential areas can provide that protection. On balance, however, Council considers that the separation of industrial activities from residential activities within urban areas should also apply to commercial Q&M activity outside of the urban boundary. Non-complying activity status is the better mechanism to achieve that separation in most cases.

This policy is also relevant because under it, the Plan identifies some industrial activities that are not permitted in urban areas, regardless of whether they meet environmental standards. These are the “primary industries” listed in Appendix E3. As noted above, hard rock Q&M activity – that involves rock crushing or explosives – is within that list and is thereby a non-complying activity within urban areas. However, it is currently a discretionary activity if it is located outside of the urban boundary but adjacent to it.

This means that the District Plan already treats different types of commercial Q&M differently in relation to urban areas. Q&M involving crushing or explosives is a non-complying activity if located within the urban areas. But if the same activity is located on a rural property that adjoins a town, it remains a discretionary activity.

Council considers that it is appropriate for Q&M involving crushing and explosives to be a non-complying activity in urban areas. The reason is that those activities should generally be away from centres of population, for both amenity and safety reasons. Applying that reasoning, it is consistent for the same non-complying status to apply to the same Q&M activity if it is located outside the urban boundary but close to it. It is inappropriate for Q&M activity that is non-complying if within the urban boundary, on reasonable grounds, to be discretionary if it is directly outside that boundary. Council considers that those particular Q&M activities should also be a non-complying activity if located outside the urban area, but within a particularised distance of residential areas; and, for the reasons discussed elsewhere in this document, for that to extend to all commercial Q&M activity.

Commercial Q&M activity that does not involve storing explosives or rock crushing is currently a discretionary activity under this policy within urban areas. That status will change with this Plan change.

Overall Assessment of Objectives and Policies

The issues, objectives and policies discussed above are those that are most relevant to commercial Q&M activity. Council is making some changes to those policies and explanatory paragraphs where it considers that they do not adequately meet the Council's resource management objectives and are not the most appropriate provisions to achieve the purpose of the Act. Council considers that the remainder of the relevant provisions are the most appropriate means to achieve the purpose and principles of the Act. Together, the changed and unchanged provisions in the District Plan provide the basis on which the activity status of commercial Q&M, and residential activity near commercial Q&M, must be decided.

On balance, Council considers that the issues, objectives and policies, weighed up and considered as a whole in the above assessment, favour:

1. Requiring resource consent as a discretionary activity for residential activity locating proximate to commercial Q&M activity;
2. A change to non-complying activity status for Q&M activity locating near residential areas.

Those issues, objectives and policies also provide some guidance as to the appropriate distances for those changes in activity status. It must be the least reasonably possible restraint on the freedom of landowners to engage in the productive, and essential, economic activity of commercial Q&M. However, it must be sufficient to provide for reasonably improved protection of the amenity values of residential areas. The specific distance set by Council must meet those needs.

Other Factors

Permitted Baseline Test

Because of the operation of the "permitted baseline test", a proposed quarry or mine with adverse effects that are the same as those that could be caused by a non-fanciful rural activity on the site would not be affected by a Plan change from discretionary to non-complying status. The effects that are the same would probably be disregarded. Council's decision would almost certainly be that there are no, or no more than minor, adverse effects.

This means that the change in the status of commercial Q&M from discretionary to non-complying may result in a different decision on resource consent applications only if the Q&M will potentially have more than minor adverse effects.

In those cases, it may be that some applications that would otherwise have been granted will be declined, due to the extra test that applies. Council considers that to be an appropriate result.

Comment on the draft proposed District Plan change by Canterbury Sand Ltd/ Winstones did not accept the above suggestion in the draft officers report. They submitted that applications for activities with no more than minor adverse effects would also be affected, as the general public's perception of non-complying will be that an activity will be unlikely to obtain consent regardless of the scale of effects.

However, it is noted that Council decisionmaking is not affected by public perceptions of the meaning of non-complying activity status. The Council's decision on a resource consent application must be on the basis of the considerations under s104 and s104D of the Act. A proposed activity that Council considers will have no more than minor effects must pass the threshold test in s104D of the Act (either having no more than minor adverse effects, or not contrary to the objectives and policies of the Plan) and, from that point, be assessed on the same basis as are discretionary activities.

Affect on Potential Commercial Q&M Operations

Non-complying activity status for commercial Q&M activity within a certain distance from residential areas would influence potential applicants for Q&M activity, and those looking to reapply for consents or to extend existing activities. The message is that if the activity is likely to have more than minor adverse effects, when compared to what can be done on the property as of right, then it should generally be located away from urban areas, unless it is not otherwise contrary to the objectives and policies of the District Plan.

Discretionary activity status, on the other hand, does tend to suggest that the activity may be more generally appropriate in that location, subject to appropriate conditions being set.

In both cases, the application can if necessary be declined, or subject to stringent conditions imposed to mitigate the adverse effects of the Q&M activity (described above). Those conditions can include detailed monitoring and reporting requirements, at the applicant's expense.

The change to non-complying activity status will have a direct and adverse impact on at least two existing commercial Q&M operators. These are Canterbury Sand Ltd, and Christchurch Ready-Mix Ltd. Both have current resource consents for sand and gravel extraction activities approximately 350m-400m from Amberley Beach township.

Canterbury Sand Ltd/ Winstones has indicated that the extraction authorised by the current consent will end within about 12 to 18 months, and that it intends to then seek further consent for extraction at a neighbouring site, of approximately the same distance from Amberley Beach. Christchurch Ready-Mix may also be in a similar situation. This change in the activity status of

commercial Q&M may increase the possibility of those applications being declined. If so, it is of direct financial cost to those companies, and to any employment and other economic and social benefits that they bring to the district..

However, as noted above, the activity can still be granted consent if it is within that non-complying area. The change in the activity status may cause the applicant to propose different and more extensive or effective mitigation measures, be they noise/dust attenuating measures, or operating limits.

Conditions on Discretionary Activities

A principal point made by some parties who the Council consulted with on the draft possible plan change is that if appropriate conditions are imposed on consent, effects are mitigated to the extent that there is no need to generally require a separation distance between the Q&M activity and residential areas. However, if the applicant can establish that conditions of resource consent will mitigate the effects of the quarry or mine to the extent that adverse effects will be minor, then the test for non-complying activities will be met. If, on the other hand, imposition of those conditions could still leave more than minor adverse effects experienced by those in the nearby residential area, non-complying activity status *may* result in consent being declined. Council considers that to be an appropriate situation.

Economic Costs

Some potential economic costs are discussed here. Others are under the further s32 discussion below.

Council's Works and Services Manager, Bruce Yates, has considered the possible impact of the change on roads infrastructure and on the District generally. He considers that as most aggregate in the District comes from rivers away from urban areas, or is a product of essential flood mitigation work close to towns (which would seldom be contrary to the objectives and policies of the Plan) the change would have no effect on the cost of the aggregate. He also considers that the local users of sand extracted at Amberley are few and in modest quantities, such that the extra cost to the District if the sand came from elsewhere would be minimal. It is relevant here that most sand used for concrete is a "blending" of sand taken from several sites anyway.

The only areas affected by the change are buffer zones around urban boundaries. The huge majority of the land area of the District is unaffected. At that broad proportionate level, the change will have minimal impact on most areas where commercial Q&M activity may occur. But that assessment of cost changes when it is considered that the principal commercial Q&M activity foreseeable for the District is sand and aggregate extraction in the vicinity of Amberley, Amberley Beach, Leithfield and Leithfield Beach. The size of the buffer around those residential areas is a proportionately greater part of the available sand and gravel resource.

Council has little information on the proportion of Q&M resources of the District that is contained within the affected area. A geologist writing for Winstone Aggregates in response to the draft District Plan change advises that

- Coarse sand suitable for use in the manufacture of concrete block products is becoming increasingly scarce;
- Some sand occurs within the gravel deposits quarried at a number of existing locations to the north and west of Christchurch, but there is a need to supplement this with coarser grained sand found in the coastal sand deposits to the north of Christchurch;
- Within the Hurunui District, sand deposits suitable for use in the manufacture of concrete block products are generally limited to a coastal strip centred about Leithfield and Amberley beaches extending northwards to the mouth of the Waipara River;
- “Deposits” are not all capable of extraction. They become a “resource” only if there is a reasonable prospect of economic extraction – ie, a willing landowner; current landuse allows extraction; other environmental effects of extraction are not too great; and other economic costs of extraction are not too great.

Taking those factors into account for extraction of coarse sand in commercial Q&M activity, it appears that the extent of the coarse sand “resource” affected by the change to non-complying activity status may be significant.

But if that quantity is significant, it is a matter that can be properly addressed in a resource consent application for Q&M as a non-complying activity. No change is being made to the policies in the Plan that acknowledge the social and economic importance of continuing Q&M activity, and that “provide for” that activity. If the applicant established that the use of a particular site was crucial for ongoing economic availability of the resource, that would be a matter to be considered by Council in deciding whether the activity is contrary to the objectives and policies of the Plan.

Also, existing resource consents are not affected, and existing use rights apply to lawfully established Q&M activities within that radius. Existing activities will not be affected unless they must reapply for resource consent. In those circumstances the party engaging in the activity will need to pass a threshold test that did not otherwise apply, by establishing that the effects of the new activity will be minor, or the activity is not contrary to the purpose and principles of the Plan. The change is not necessitating a resource consent application where none was necessary before.

The change does not prohibit Q&M activity. It requires a further test to be established if it is to proceed. In some circumstances, the test will be met; in others, it will not be met. Given the current small number of resource consent applications – either granted or declined – for Q&M activity, there is no basis to assess the extent to which this change will result in applications being declined that would otherwise have been granted.

If the result of the change is a quarry or mine application being declined that would otherwise have been granted, there is no basis for assessing that as an economic loss equivalent to the unutilised resource. The cost may be limited to the cost of identifying and obtaining consent for the extraction of resource elsewhere. The effect of the change may be one of encouraging Q&M operators to locate sources of aggregate away from the urban areas where that exploration would not otherwise have occurred, and thereby substituting one source with another. Alternatively, the applicant could amend the way they intend to engage in the activity, possibly proposing more extensive mitigation measures, and reapply for consent.

Size of Buffer Distances

Any attempt to set the “buffer” distance from urban areas within which Q&M is non-complying is arbitrary. It is a blunt tool to control effects. There is little logical justification for rules based on the assumption that adverse effects from activities 490m away are worse than those at 505m away. Also, landscape, vibration, dust and noise effects vary, depending on landscape features, geological matters, vegetation, prevailing winds, scale and intensity of the activity, time of day, other environmental factors and mitigating factors. Those factors may have greater impact on whether urban areas experience adverse effects than would distance alone.

However, that argument about the arbitrary nature of Plan standards applies to any quantifiable standard, such as minimum lot sizes, or dwelling setbacks. Provision of objective legal certainty requires the drawing of a line at some point.

There can be no doubt that the adverse effects of commercial Q&M would generally decrease as separation distance increases. If the issue was solely one of the amenity values of residential areas, the extent of the separation distance could be almost unlimited. But that is not the case. The separation distance must strike a balance between, on the one hand, having a meaningful impact on maintaining amenity values in the urban area by generally mitigating adverse effects; and on the other hand, being the minimum constraint on commercial Q&M and landowner freedom necessary to control adverse effects. It is also relevant that Q&M activity can still establish within that buffer distance, if the effects are no more than minor, or if the activity is not contrary to the objectives and policies of the District Plan.

There is little practically to differentiate between separation distances of, say 400m, 500m or 600m. However, Council has adopted a distance of 500m to apply to both non-complying activity status for commercial Q&M activity locating near residential areas, and also to discretionary activity status for residential activity locating near existing commercial Q&M activity. The reasons for specifying that distance are:

- It is the distance favoured in community consultation (being the petition, and the recommendation of the previous Council);

- It is already contained in the assessment criteria for Q&M activity, following the 2001 Variation to the proposed Plan;
- It is consistent with the separation distance in Plan rules relating to intensive farming and sewage treatment facilities;
- It appears to be a buffer distance sought elsewhere in a Plan change dispute by Winstone Aggregates;
- It appears to strike a balance between, on the one hand, protecting amenity and the health and safety of communities; and on the other hand, providing for Q&M in the District as a valued economic activity.

Council has carefully considered whether the distance within which commercial Q&M is a non-complying activity should be different for hard rock Q&M activity, and other Q&M activity. The noise effects of hard rock Q&M activity are generally more adverse than those of most other Q&M activity.

However, Council considers that 500m is the minimum reasonable distance for other Q&M activity to be classed as non-complying. The explosive noise and vibration effects of hard rock Q&M are the ones less likely to be significantly mitigated by relatively small changes in the separation distances. Differentiating between types of Q&M activity would require a 500m distance for other commercial Q&M, and a greater distance for hard rock quarrying. Council considers that the result would not be striking the right balance between facilitating productive land uses, and protecting amenity values.

Council has acknowledged those qualitative differences in effects between hard rock quarrying and other Q&M activity by introducing some changes to the explanations of policies 10.6, 10.6a and 10.10. Those changes expressly recognise that the adverse effects of hard rock Q&M are generally more adverse than those of other commercial Q&M activity. The changes provide that the separation distances required of hard rock Q&M activity would generally be greater than those required of other commercial Q&M activity. Those provisions would be taken into account when Council is assessing whether a resource consent application for a non-complying activity is contrary to the objectives and policies of the Plan, and whether it thereby passes the s104D threshold test.

Changing Activity Status of Residences Locating Proximate to Q&M Activity

The Plan identifies the need to provide for Q&M activity. The activity provides social and economic benefits. It ought not to be unduly constrained as a result of housing being built close to Q&M activity. The proximity of those houses can result in conflict. The Plan recognises that these reverse sensitivity issues can lead to constraints on lawfully established activities. It highlights in particular the potential for this to occur in the Waipara Winegrowing Area. It has rules rendering residential activity a discretionary activity within 500m of intensive farming and sewage treatment facilities for those reasons.

Q&M activity is in the same category as those referred to above, in that it is an activity whose effects are seldom wholly internalised. If resource consent is granted for the activity subject to particular conditions, it is appropriate for sensitive activities to locate proximate to the Q&M only if it will not lead to undue constraint on the Q&M.

It is considered that for the sake of efficiency and consistency in application of the rules, residential activity should be rendered a discretionary activity if locating within 500m of Q&M activity.

Residential activity within existing urban areas has been excluded from this new rule. That exclusion exists as the rule is intended to control the effect of residential activities being created where they did not previously exist, near Q&M activity, and putting pressure on that activity. The focus of the rule is on people building within rural areas near Q&M activity. But if it is a new dwelling within an existing urban area, there are already a large number of dwellings within that 500m area from the Q&M. The “reverse sensitivity” effect is practically unchanged by there being another dwelling within that area.

Plan Change Consistency With ss74-75 RMA Requirements

Ensures that the Plan Gives Effect to National Policy Statements

There are no National Policy Statements.

Ensures that the Plan Gives Effect to the New Zealand Coastal Policy Statement

The Coastal Policy Statement is not relevant.

Ensures that the Plan is Not Inconsistent with a Water Conservation Order

The change is not inconsistent with any Water Conservation Order.

Ensures that the Plan is Not Inconsistent with the Regional Policy Statement

The change is not inconsistent with the Regional Policy Statement.

Ensures that the Plan is Not Inconsistent with a Regional Plan

There is no relevant regional plan.

Having regard to any proposed Regional Policy Statement

There is no proposed Regional Policy Statement.

Having regard to the Proposed Regional Plan

The Proposed Regional Plan has been notified. Submissions have not closed on all chapters. No decisions have been made on submissions on those chapters. The provisions can as yet be given little weight. Regardless of that, it is considered that the change is consistent with those proposed chapters to the Regional Plan.

Having Regard to Relevant Management Plans and Strategies Prepared Under Other Acts

Council officers consider that none are relevant.

Having Regard to the Extent to Which the Plan Needs to be Consistent with the Plans of Adjacent Territorial Authorities

It is considered that no cross-boundary issues that make the Plans of adjacent authorities relevant arise in this proposed change. Christchurch Ready-Mix has submitted that the current activity status is consistent with other territorial authorities in Canterbury. Clarity and simplicity for Q&M operators is enhanced if all authorities deal with Q&M activity in the same way. However, those advantages are surpassed by the need for each territorial authority to regulate the effects of activities in the way which it considers best meets the objectives of its Plan, and the purpose of the Act, for the particular circumstances of its District.

Accordingly, it is considered that there is no need for the HDC Plan provisions regarding Q&M activity to be consistent with the plans of adjacent territorial authorities.

Taking Into Account Relevant Planning Documents Recognised by the Iwi Authority and Lodged With the HDC

There are no issues concerning relevant planning documents recognised by the Iwi Authority and lodged with the HDC.

Accord With HDC's Functions Under the Act

It is considered that the proposed Plan change is in accordance with the Council's functions under the Act. The change (applying s31 of the Act):

- Achieves the integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district;
- Assists the Council to control the actual or potential effects of the use, development, or protection of land;
- Assists the Council to control the emission of noise and the mitigation of the effects of noise.

Accord With the Purpose and Principles of the Act

The purpose is set out in section 5 of the Act as follows:

The purpose of this Act is to promote the sustainable management of natural and physical resources.

“In this Act, “sustainable management” mean managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while-

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life –supporting capacity of air, water, soil, and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment”.*

The principles are set out in sections 6-8 of the Act as follows:

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:

- (a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
- (b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
- (c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*
- (d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
- (e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*
- [(f) the protection of historic heritage from inappropriate subdivision, use, and development.]*

7. Other matters—

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 have particular regard to—

- (a) Kaitiakitanga:*
- [(aa) The ethic of stewardship:]*
- (b) The efficient use and development of natural and physical resources:*

- [(ba) the efficiency of the end use of energy:]*
- (c) The maintenance and enhancement of amenity values:*
- (d) Intrinsic values of ecosystems:*
- (e) Repealed.*
- (f) Maintenance and enhancement of the quality of the environment:*
- (g) Any finite characteristics of natural and physical resources:*
- (h) The protection of the habitat of trout and salmon:*
- [(i) the effects of climate change:]*
- [(j) the benefits to be derived from the use and development of renewable energy.]*

8. Treaty of Waitangi—

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 take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

It is considered that the purpose and principles of the Act are embodied in the unamended objectives and policies of the Plan. The change is consistent with the unamended objectives and policies. The amended policy is consistent with the purpose and principles of the Act; and in particular, with the duty to have particular regard to maintenance and enhancement of amenity values and of the quality of the environment. This is further discussed below.

Accord with the HDC Duties Under s32 of the Act

This is discussed throughout this report.

Comparison of Options¹

The starting point is the current rules in the Plan. Those rules require resource consent applications for any Q&M activity, in most cases deeming it to be a discretionary activity; and provide for residential activity locating near to Q&M activity as a permitted activity.

The first part of this evaluation concerns the activity status of commercial Q&M activity proximate to urban areas, and policies and explanations that are relevant to that.

The issue being addressed by this Plan change enquiry is limited to the potential adverse effects of Q&M on residential areas. The enquiry is not concerned with the manner in which the District Plan treats Q&M activity in a

¹ Section 32 of the RMA does not expressly require a comparison of various options. However, that comparison is implicit in determining the “most appropriate” provisions. That determination necessitates an alternative against which the provisions are weighed.

general sense. The Plan requires resource consent for Q&M as a discretionary activity. That is not at issue. Non-regulatory methods for addressing the potential adverse effects of Q&M activity on residential areas are therefore not viable options. Council has discounted them as options. The options compared here are variations on appropriate regulatory responses.

The options compared below are:

1. The status quo (discretionary activity, with or without minimum standards that must be met in order for it to be considered a discretionary activity and that if not met render it a non-complying activity);
2. That non-complying activity status apply if the activity is within 500m of urban areas, with drafted changes as proposed;
3. That non-complying activity status apply if the activity is within 1,000m of urban areas;
4. That there be different non-complying areas for other Q&M, at 200m, and hard rock quarrying, at 500m.

The second part of the evaluation concerns the activity status of residential activity proximate to commercial Q&M activity, and policies and explanations that are relevant to that.

The options compared are:

- A) The status quo (permitted);
- B) The status quo, but with provision of advice and public information on the possible effects of Q&M, directed at anyone who is considering building near Q&M activity;
- C) Discretionary activity status if located within 200m of commercial Q&M activity;
- D) Discretionary activity status if located within 500m of commercial Q&M activity.

The comparison of those options is done below in a table format. Use of that format does not represent a scientific or mathematical process. The tables represent a series of judgments.

The options will be compared on the tables using the numbers above (1,2,3,4) and letters above: (A,B, C and D). The tables interrelate and overlap.

On each table, options are given a score that shows how much the option is judged to be better or worse than what the Plan says now. Those scores are:

- | | | |
|----|---|----------------------|
| -3 | = | much worse |
| -2 | = | significantly worse |
| -1 | = | worse |
| 0 | = | no change |
| +1 | = | better |
| +2 | = | significantly better |

+3 = much better

The current District Plan provisions will always be rated with a “0”. Uncertainties will be noted on the charts by a questionmark.

Extent to Which the Relevant Objective is the Most Appropriate Way to Achieve the Purpose of the Act

The proposed Plan change does not change any objectives in the District Plan. The Plan was made under the RMA. An underlying assumption of this Report is that the existing and unchanged objectives are deemed to implement the purpose of the Act and are the most appropriate way to achieve the purpose of the Act.

In case that assumption is wrong, we here evaluate each of the relevant objectives.

Objective 1:

To maintain those physical and biological characteristics of the soils of the District which enable them to retain their life supporting capacity and to sustain plant growth.

Soils are a natural and physical resource. The purpose of the Act is to promote the sustainable management of that resource. Objective 1 is the most appropriate means by which to achieve that purpose.

Objective 3:

To avoid, remedy or mitigate the adverse effects from environmental pollution in the District and to maintain and enhance the quality of the Hurunui environment.

Environmental pollution is an adverse effect of the use, or development of natural and physical resources. It can harm health and wellbeing. The purpose of the Act is to be achieved while avoiding, remedying or mitigating any adverse effects of activities on the environment when managing the use, development and protection of natural and physical resources. Objective 3 is the most appropriate means by which to achieve that purpose.

Objective 10:

A healthy and safe environment within the District and maintenance and/or enhancement of amenity values which the community wishes to protect.

Objective 10 covers three objectives:

- A healthy and safe environment within the District; and
- Maintenance of amenity values which the community wishes to protect; and/or

- Enhancement of amenity values which the community wishes to protect.

Having a healthy and safe environment is within the definition of “sustainable management” in the purpose of the Act. The amenity values that the community wishes to protect contribute to social and cultural wellbeing and can be adversely affected by activities. Objective 10 is the most appropriate way to achieve the purpose of sustainable management of natural and physical resources, the use, development or protection of which has potential to adversely affect those values.

Objective 16 is “The sustainable management of urban areas which maintains and enhances both the character of each township and the environmental quality and attributes of townships”.

This objective is relevant as the sustainable management of urban areas includes managing the effects on those areas of activities in surrounding rural areas. This Plan change addresses some of those effects, and is thereby consistent with this objective. The objective itself is framed in narrow terms around the purpose of the Act and is considered by Council to be the most appropriate way to achieve the purpose of the Act.

Taking into account the benefits and costs of the policy, rule or other method

There are three types of benefits and costs referred to here – environmental, social and economic.

Identifying those benefits and costs is a necessary first step to carrying out the evaluation of the efficiency and effectiveness of the provisions.

Economic Benefits and Costs

It can be difficult to quantify benefits and costs associated with Q&M with precision. The following factors are relevant:

- The extent of any increased cost of resource consent applications if the activity status is non-complying rather than discretionary. The need to apply, and the number of applications, does not change. If the adverse effects are no more than minor, the process and likelihood of the application being granted are the same. The assumption is made here that if there is an increased cost, it is minor.
- The location of all the desired sand, aggregate and minerals that Q&M activities could extract in the District.

- The quantity of each of those in the District.
- The proportion of that quantity that is close to urban areas;
- The proportion of that quantity that would become unavailable if the status of Q&M changes from discretionary to non-complying at the site of the mineral/sand/aggregate (ie, for how much of it a resource consent application for Q&M as a non-complying activity would be declined, but for which consent would have been granted had it been a discretionary activity). This was discussed above. Council concludes that some of this could be rendered unavailable;
- The actual costs of exploration to locate sources, and extraction, outside of that radius, in comparison to the costs of locating further resources, and extracting, inside that radius;
- Whether there would be an increase in the cost of extracted aggregate to users in this District, and if so, the amount of that increase, if the activity classification changes from discretionary to non-complying. This is discussed above. Council concludes that this cost could be no more than minimal;
- The degree to which the change would affect land value, either within the neighbouring residential area, or within the rural zoned land affected by the change. The presence of a nearby Q&M activity with more than minor adverse effects could have a negative effect on the value of residential property; but the suitability of rural land for Q&M activity could have a positive effect on the value of the rural land;
- The effect of a change in the status of residential activity on the value of the affected land.

Options	1	2	3	4	A	B	C	D
Cost of resource consent applications	0	-0.5	-0.5	-0.5	0	0	-1	-2
Cost of under-utilised resource	0	-0.5	-0.5	-0.5	0	0	+1	+1
Encourages exploration of other resources	0	+1	+1	+1	0	0	0	0
Cost of resource “importation” from elsewhere	0	0	0	0	0	0	0	0
Profitability of land use	0	0	0	0	0	0	0	0
Infrastructural cost of Q&M locating elsewhere	0	-1	-2	-0.5	0	+1	+1	+1
Perceived improved amenity of urban areas	0	+1	+1	0	0	0	0	0
Infrastructural cost of housing locating elsewhere	0	0	0	0	0	-0.5	-1	-1
Reverse sensitivity restraints on Q&M	0	+1	+1	+1	0	+0.5	+1	+1

Despite some difficulties with precisely quantifying economic costs and benefits, the Council considers that change in the status of Q&M may have a minimal net economic cost, with that cost increasing as the radius for non-complying activity increases; and change in the activity status of residential activity close to Q&M has a potential net economic benefit that surpasses that of the alternative.

Social Benefits and Costs

Options:	1	2	3	4	A	B	C	D
Amenity values of residential areas or residential activities	0	+2	+2	+1	0	+0.5	+1	+1
Perceptions of towns as good places to live and work	0	+2	+2	+1	0	0	0	0
Meets a need identified by part of society	0	+2	+2	+1	0	0	0	0
Employment opportunities affected	0	0	0	0	0	0	0	0
Provides for extraction of a necessary social resource	0	-1	-2	-0.5	0	+0.5	+1	+1

Overall, non-complying activity status for Q&M is likely to have net social benefits, in terms of amenity benefits; but it will be of social cost to the extent that it restricts the extraction of an essential resource. The latter cost is not weighed as being a likely one, for the reasons discussed elsewhere in this report. There is little basis for identifying a difference in social benefits and costs between the 500m and 1,000m separation distances. The principal difference is that if there is a social cost of underutilised resource, that cost is greater if the non-complying distance is greater.

Constraints on residential activity proximate to Q&M is likely to have net social benefits in comparison to the other options considered.

Environmental Benefits and Costs

Options:	1	2	3	4	A	B	C	D
Noise	0	+2	+3	+2.5	0	+0.5	+1	+2
Dust	0	+2	+3	+2.5	0	+0.5	+1	+1
Landscape	0	+2	+3	+2.5	0	+0.5	+1	+1
Vibration	0	+2	+3	+3	0	0	0	0
Motor Vehicle emissions	0	-1	-1	-1	0	0	0	0

This assessment overlaps with that of social costs and benefits. Overall, change in status of Q&M activity would have significant environmental benefits to the extent that it better manages the potentially more than minor adverse effects of Q&M activity close to towns. The extent of the environmental gains increases as the separation distance increases. The environmental benefits may include precluding the proposed activity in some cases; or more extensive effects mitigation measures than would otherwise have occurred; or a general effort by Q&M operators to locate practically extractable resources further from townships. This assessment is of the improvement over the environmental effects that would have been suffered in residential areas with discretionary activity status.

The change in the status of residential activity locating proximate to Q&M activity is also likely to have significant environmental gains for the residential users who would otherwise have been able to establish without consideration of any measures to reduce the potential impact on them of the Q&M activity.

Whether, having regard to their efficiency, the policies, rules or other methods are the most appropriate for achieving the above objectives

The most appropriate provisions having regard to *efficiency* will be those that achieve the above objectives at the least overall cost, when compared to other provisions.²

Having regard to efficiency requires a measuring, in which the benefits of the options are compared to the costs. This is done by:

- (i) Deciding the net environmental benefits by subtracting the environmental costs of the policy, rule or other method from the environmental benefits; and then
- (ii) Deciding the net social and economic costs or benefits by subtracting the social and economic benefits of the policy, rule or other method from the social and economic costs; and then
- (iii) Comparing the net environmental benefits with the net social and economic costs.

Options:	1	2	3	4	A	B	C	D
Net Economic Benefits or Costs	0	-1	-1.5	-1	0	+1	+1	+1.5
Net Social Benefits or Costs	0	+2	+2	+1	0	+0.5	+1	+1
Net Environmental Benefits or Costs	0	+2	+2	+2	0	+0.5	+2	+2
= Efficiency Rating	0	+2	+1	+1	0	+0.5	+1	+1.5

It is concluded that most appropriate options having regard to their efficiency are the proposed Plan changes.

Whether, having regard to their effectiveness, the policies, rules or other methods are the most appropriate for achieving the above objectives

Deciding *effectiveness* requires an evaluation of the provisions at a practical level, considering how successful they are in addressing the issues so as to achieve the desired environmental outcome. This requires an assessment of: the threat to the environment that is causing the issue; the extent of the risk to the environment; the costs of the proposal, and who will bear them; and how the method will be implemented.

Options:	1	2	3	4	A	B	C	D
Monitoring Cost	0	+1	+1	+1	0	0	-1	-2
Rule implementation cost	0	0	0	0	0	0	-1	-1
Practical Feasibility	0	0	0	0	0	0	0	0
Enforceable (compared to conditions on consents)	0	+1	+1	+0.5	0	0	+1	+1
Time delay in effectiveness	0	0	0	0	0	-2	0	0
Equitable in balancing of interests	0	+1	-1	-1	0	-1	+1	+1

² It is assumed for this Report that for Plan changes, section 32 of the RMA requires an examination only of those policies, rules or other methods that are relevant to the change.

It is considered that the change options are more effective than the status quo, and that the change option undertaken is more effective than the other two change options.

Taking into account the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules or other methods

This requires a measurement of the risks of not acting against the risks of acting; and of the risks of not acting against the benefits of acting.

The risk of not acting is social and environmental: harm to the valued amenity of District townships caused by Q&M activities with more than minor adverse effects locating close to them; of adverse effects on the health of people and communities caused by those effects; and of residents' concerns about imminent harm to their living environments remaining unsatisfied.

The risk of acting is economic and social, in that it could render uneconomic or unavailable a necessary mineral resource. Council assesses that risk as being a minor one.

Those risks are weighed against the benefits of acting. For Q&M operators, this is limiting the potential for reverse sensitivity issues leading to restrictions on their existing activities; for residents in the urban areas, it is a possible limit on adverse effects from Q&M activity that they would otherwise have experienced.

That assessment of risks favours change.

Conclusion of s32 Analysis

It is considered that the issue of whether non-complying status applying around urban areas is more appropriate than discretionary activity status is a finely balanced one. Non-complying activity status is considered to be most appropriate by a narrow margin.

Council considers that the most appropriate distance around urban areas in which it should be non-complying is 500m.

The most appropriate activity status for residential activity close to Q&M operations is discretionary, to a distance of 500m.

Appendix : The Changes to the Assessment Criteria for Q&M in the Plan

1. The Original Assessment Criteria in the Proposed Plan

(x) Quarrying and mining:

- The risk of adverse effects on neighbours such as dust nuisance, noise, or traffic generation;
- The likelihood that the land will be restored at a later date and the purpose for which it will be restored;
- The visual impacts from surrounding areas and roads, including of stockpiling;
- The ability to adequately plant slopes of any excavation;
- The intensity, frequency and duration of hours of operation and any likely impacts; and
- The number and proximity of adjoining residential sites.

2. The Criteria Added By Notified Variation 37

- The timeframe and management of the rehabilitation process

3. The Criteria Following the Decision on Variation 37

(x) Quarrying and mining:

- The risk of adverse effects on neighbours such as dust nuisance, noise, lighting or traffic generation;
- The visual impacts from surrounding areas and roads, including of stockpiling;
- The height, volume, location and duration of stockpiling and it's extent and appearance;
- The appearance and size of any crushing plant and any other machinery used on the site;
- The period and time the crushing plant would be visible and/or above ground;
- The ability to adequately plant slopes of any excavation;
- The effect on the stability of any adjoining land or roads, taking into account slope erosion or collapse;

- The intensity, frequency and duration of hours of operation and any likely impacts;
- The number and proximity of adjoining residential sites;
- Adequate provision of a buffer area between urban management areas and quarrying and mining activities. It is considered that a minimum buffer zone of 500 metres would be created between any mining activity and any urban zone in which no quarrying or mining would be undertaken;
- The likelihood of community effects, both negative and positive, including the effects on the quality of life of surrounding residents in terms of communities being able to provide for their economic, social and cultural well-being and for their health and safety;
- The impacts on hydrology and ecology;
- Potential of contamination of soil or ground water from stored material;
- The impacts on kaitiakitanga, waahi tapu, other taonga and mahinga kai;
- The effects of increased traffic generation on roading networks servicing any quarry or mine operation which might affect the health and safety of people, in terms of compatibility with existing type and volume of traffic, compatibility with pedestrians, cyclists, horse riders and other road users;
- The likelihood of the roading structure being capable of carrying the impacts of heavy vehicles in terms of standard and construction and intersection safety, for the duration of the quarrying and mining activity;
- Likelihood that quarry materials could accumulate on road surfaces and create a hazard or nuisance;
- Potential for vehicle conflict;