

17.8 Minerals Extraction Activities

17.8.1 Introduction

Minerals are defined in the Crown Minerals Act 1991 as:

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“... naturally occurring inorganic substances beneath or at the surface of the earth, whether or not under water; and includes all metallic minerals, non-metallic minerals, fuel minerals, precious stones, industrial rocks and building stones.”

Minerals are not renewable and the sustainable management of them as natural and physical resources which is required by Section 5 of the Resource Management Act 1991 does not include sustaining the potential of minerals to meet the foreseeable needs of future generations.

Mineral extraction activities must, however, meet the criteria of Section 5(2)(b) and (c) in terms of managing their effects on *other* resources.

Section 7(b) of the Resource Management Act refers to the efficient use and development of natural and physical resources, as a matter to be had particular regard to. The provisions of the District Plan should therefore enable mineral resources to be used efficiently without unnecessarily restricting people to provide for their needs.

It should be noted that the state of mineral resources in Manukau is dealt with in Chapter 2, City Resources.

17.8.2 Resource Management Issues

Issue

17.8.2.1 Mineral extraction activities have the potential to cause adverse effects on the environmental qualities of the City.

Mineral extraction activities are a temporary activity, but they can have a range of adverse effects on the natural environment including alteration of landforms and depletion of vegetation which can significantly affect the environmental qualities and amenities of sensitive areas and habitats. Loss of vegetation and problems with overburden disposal can cause stability problems and adversely affect water quality. Human health can be adversely affected by noise, dust and vibration from blasting, earthmoving machinery, rock crushing and heavy traffic. Lack of site rehabilitation can limit options for future activities.

Issue

17.8.2.2 Access to mineral resources can be affected by encroaching development which may create conflicts which impede the efficient long term extraction of mineral resources.

The City's industrial aggregate mineral resources have the potential to provide accessible materials which are essential for the infrastructural development of the City and Region. Exploration and prospecting for these resources are necessary to obtain information on their extent, quality and location, so that people and communities can make informed choices on land use activities, including protecting the potential of mineral resources for extraction. Mineral resources are sourced from limited defined locations and distributed to a range of points of use throughout the City. The volume of trucks increases with distance from the resource with a consequent increase in adverse effects on such matters as traffic safety and noise.

17.8.3 Objectives

Objective

- 17.8.3.1 To protect the environment including people and communities from the adverse effects of mineral extraction activities.**

(This objective relates to issue 17.8.2.1.)

Objective

- 17.8.3.2 To enable the efficient prospecting extraction, processing, distribution and transportation of mineral resources.**

(This objective relates to issue 17.8.2.2.)

17.8.4 Policies

Policy

- 17.8.4.1 Mineral Extraction Activities should avoid, remedy or mitigate adverse effects on the environment in a way that:**

- (a) minimises adverse effects on existing amenity values as far as practicable.
- (b) protects the values of heritage or archaeological sites, buildings, places or areas.
- (c) protects the stability of adjacent land from the adverse effects of mineral extraction activities.
- (d) provides for site rehabilitation to be undertaken to a standard which will enable likely options for future activities.
- (e) keeps adverse effects of the transportation of industrial aggregates to an acceptable level.

(This policy relates to Objective 17.8.3.1)

Explanation/Reasons

The effects of mineral extraction activities can include noise, dust and vibration from blasting, alteration to ground water flows, lowering of water quality, loss of vegetation and habitats, including heritage and archaeological sites, impacts on agriculture and recreation, nuisance from heavy traffic and long term effects on landforms, stability and after use, whereby spoil dumps may need ongoing management.

Methods

- Activity Tables
- Development and Performance Standards
- Assessment Criteria
- Roding hierarchy and choice of routes
- Heritage Items

Policy

17.8.4.2

The development and use of land in Manukau should:

- (a) recognise the locational limitations of mineral extraction activities and the need for efficient extraction of resources;
- (b) protect land in the Quarry Zone and lawfully established mineral extraction sites from encroachment by subdivision and sensitive activities that could compromise the efficient development of the resource and create ongoing conflicts.

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Explanation/Reasons

Mineral resources are fixed in location, unevenly distributed and need to be discovered. Provision is made for mineral extraction activities in certain areas of the city where they are found, to enable the community to use this resource and to promote the extraction of mineral resources before the land is developed for other activities.

Although the effects of mineral extraction activities can be mitigated to a standard commensurate with other activities at the time they are established, the encroachment of sensitive activities such as residential uses can occur over time. The potential for conflict needs to be recognised so that lawfully established mineral extraction sites are not forced to close prematurely, with adverse effects on the wider community.

The effects of mineral extraction activities can include noise, dust and vibration from blasting, alteration to ground water flows, lowering of water quality, loss of vegetation and habitats, including heritage and archaeological sites, impacts on agriculture and recreation, nuisance from heavy traffic and long term effects on landforms, stability and after use, whereby spoil dumps may need ongoing management.

The Plan has recognised these issues by way of specifically providing for a Quarry Zone as well as providing for mineral extraction to occur in other zones such as Rural 1, Mangere Puhinui Rural and Business 5 and 6 as a Discretionary Activity subject to appropriate controls. Rules are also in place in the Rural, Subdivision, and Mangere–Puhinui Chapters for subdivision and household limitations to minimise potential conflicts between incompatible activities (such as housing units) and production based activities including mineral extraction in the Rural 1 and Mangere–Puhinui Zones.

Applications for new quarries are required to demonstrate that suitable measures or agreements are in place to avoid, mitigate, or remedy adverse effects on neighbouring properties, including noise, vibration, dust and traffic effects. Other than in the Quarry Zone such effects of new quarries should be reasonably internalised within the site generating them, rather than being experienced on neighbouring properties. The exception is where consent of affected neighbours has been obtained (except where in the opinion of the Council, it is unreasonable or impractical to obtain such consent).

The approach taken recognises that it may not be reasonable or practicable to internalise adverse effects on neighbouring properties from mineral extraction activities

- (a) in the Quarry Zone; or
- (b) for pre-existing quarries operating under existing use rights; or
- (c) quarries with resource consents (subject to the nature and scope of any conditions allowing the review of consent conditions).

In recognition of the regional significance accorded to aggregate resources under the Auckland Regional Policy Statement, and to enable appropriate avoidance, mitigation or remediation measures to be

achieved, new activities in proximity to a quarry (typically up to 500m) will be assessed for effects on the quarry, and in addition to this, a specified “Mineral Extraction Buffer Area” will be applied to the Quarry Zone and to specified lawfully established quarries, extending beyond either a Quarry Zone or defined quarry extraction area or site boundary.

Within identified buffer areas activities which would otherwise be a permitted, controlled or restricted discretionary activity such as subdivision or development involving short or long term accommodation require a restricted discretionary resource consent approval. Each case has to be evaluated on an individual basis, and appropriate mitigation measures and liability for costs of instituting these determined according to the circumstances. Assessment criteria are provided to address these issues.

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Methods

- Zoning
- Land Information Register
- Activity Tables

17.8.5 Mineral Extraction Strategy

17.8.5.1 Introduction

The mineral extraction strategy results from objectives and policies for managing the extraction of mineral resources in the city. It recognises that mineral extraction activities can cause significant adverse effects to adjacent property which need to be controlled, while enabling the efficient extraction of the resource in the wider interests of the community. Because mineral extraction is a temporary activity provision must be made for site rehabilitation to a standard that will maintain potential opportunities for the end use of the site.

17.8.6 Implementation

17.8.6.1 Regulatory Methods

Zoning

Because of the importance of industrial mineral resources to Manukau and the region, it is considered necessary to give priority to them in certain areas to ensure that access to identified and potentially viable deposits of mineral resources is maintained. This should assist their efficient extraction over time.

The quarry zone in Wiri encompasses an extensive area of mineral resources. It will continue to enable the efficient extraction of industrial aggregates over the long term by providing for Mineral Extraction Activities as a Controlled Activity.

Non-quarrying activities in the Quarry Zone may occur in areas of the site which have been quarried or are awaiting quarrying development. Such activities should be discretionary activities in order to ensure that there is no constraint on the quarrying activity intended for the zone.

Activity Types

In areas of the City where mineral resources are not so extensive, their extraction can be carried out as a Discretionary Activity in general zones such as Business 5 and 6, Rural 1 and Mangere Puhinui Rural Zones. Within these zones, areas of sensitive environmental, cultural and heritage values or high amenity values will be protected from the adverse effects of mineral extraction activities by regard to the Development and Performance Standards for the Quarry zone and discretionary activity Assessment Criteria.

In some areas of the city where there are deposits of tuff and industrial clays that are close enough to the surface of land to be extracted without the need for blasting, mineral extraction activities can be undertaken as part of the land modification and subdivision process subject to time constraints and controls on intensity of activity. The provisions relating to this activity are in Rules 9.8.2 and 9.11.3 of Chapter 9, Land Modification, Development and Subdivision.

Development and Performance Standards

The performance standards relating to noise, vibration and dust and other controls on access and traffic, the control of discharges of contaminants to air, land and water and sediment control, protection of coastal marine areas and avoidance of natural hazards are generally the same for mineral activities throughout the City, but recognition is also given to the location of the quarries and the sensitivity of other activities in the vicinity. The relevant regional plan rules also apply.

17.8.6.2 Non Regulatory Method

Where there are possibly economic and accessible deposits of minerals in the city, this information shall be recorded on the Land Information Register as a matter to be taken into account by owners/developers. The Council will investigate establishing a minerals information base containing information on the type, location and scale of mineral resources within the District, their current utilisation and the feasibility.

17.8.7 Anticipated Environmental Results

The anticipated environmental results for mineral extraction activities are:

- a safe and healthy environment will be maintained
- amenity values of areas adjoining mineral extraction sites will be maintained
- land instability will be avoided
- the values of heritage or archaeological areas will be protected
- extraction of mineral resources will be maximised
- mineral extraction sites will be rehabilitated

17.8.8 Procedures for Monitoring

In order to assess the suitability and effectiveness of the objectives, policies and methods in achieving the anticipated environmental results contained in the Quarry Zone, Council will develop a monitoring programme (see Chapter 1, Section 1.7.3) which may include the following monitoring procedures:

- Monitoring resource consents for mineral extraction activities including the number of applications granted consent, compliance with consent conditions, and the effectiveness of those conditions. Where consent holders are required to undertake self-monitoring, they shall supply monitoring reports to the Council for auditing purposes whenever the Council deems it necessary:
- Monitoring complaints and enforcement actions regarding the nuisance aspects of mineral extraction activities.
- Developing a database of known mineral resources within the City.

17.8.9 Description and Explanation of Zone

17.8.9.1 Quarry Zone

One of the largest deposits of scoria and basalt in the City is in the Quarry Zone at Wiri, where mineral extraction has been carried out for many years, along with associated and compatible activities. Mineral extraction is a controlled activity in the Quarry Zone and must comply with the Development and Performance Standards in Rule 17.8.11 and be assessed in terms of matters for control and assessment criteria set out in Rule 17.8.12. The purpose of the zone is to maximise the extraction of the mineral resource and therefore activities which are sensitive to, or likely to prevent the extraction of mineral resources are not provided for in this zone.

Minerals extraction activities are transitory and the lifetime of a minerals extraction site depends on a number of variables including the amount and accessibility of the resource and fluctuating demand and costs, in accordance with the level of economic activity. Once mineral activities on a site are completed and site rehabilitation is to a satisfactory standard, the land can be rezoned for appropriate activities.

17.8.10 Rules — Activities

17.8.10.1 Activities in Quarry Zone

Activities in the Quarry Zone shall comply with the following:

- (a) All permitted activities in Rule 17.8.10.2 Activity Table shall comply with Rule 17.8.11 Development and Performance Standards.
- (b) All controlled activities in Rule 17.8.10.2 Activity Table shall comply with Rule 17.8.11 Development and Performance Standards and Council shall exercise control over those matters specified in Rule 17.8.12.
- (c) All discretionary activities in Rule 17.8.10.2 Activity Table will be assessed against Rule 17.8.13 Assessment Criteria — Discretionary Activities, together with the relevant matters set out in S104 of the Act.
- (d) Any activity not listed in Rule 17.8.10.2 Activity Table is deemed to be a non-complying activity.

- (e) For notification procedures under the Resource Management Act 1991 see Rules 5.2.2, 5.2.3, 5.2.4 and 5.3.3.1 of Chapter 5 General Procedures and Rules.

Note: Activities Sensitive to Aircraft Noise in the Quarry Zone

Any Activity Sensitive to Aircraft Noise (“ASAN”) and certain additions to an ASAN for which provision is made in this zone as a permitted, controlled, restricted discretionary or discretionary activity:

- are subject to Rule 5.21, and
- may also become a controlled, restricted discretionary, discretionary or non-complying activity by reason of Rule 5.21

if the subject site is located within the High Aircraft Noise Area or the Moderate Aircraft Noise Area. Therefore, in the case of an ASAN and certain additions to an ASAN in this zone, reference should be made to Rule 5.21.

(Refer to Chapter 18 for the definition of “Activity Sensitive to Aircraft Noise”)

17.8.10.2 Activity Table

In the Table below the terms used have the following meanings:

P = Permitted Activity

C = Controlled Activity

D = Discretionary Activity

| ACTIVITY | QUARRY ZONE |
|---|--|
| Mineral Extraction Activities | C |
| Site Rehabilitation (including cleanfill activities) | C |
| Accessory buildings to foregoing activities limited to site offices, staff facilities and buildings for the maintenance of quarry plant and vehicles | P |
| Any business using quarried material as raw material | D |
| Signs | Refer Chapter 5 General Procedures and Rules |
| Activities, except those nominated in this Table, that are Permitted, Controlled, Restricted Discretionary or Discretionary Activities in the Business 6 Zone | D |
| Pastoral Grazing | P |
| Land Modification, Development and Subdivision | Refer Rules Chapter 9 Land Modification, Development and Subdivision |

17.8.11 Rule — Development and Performance Standards**Rule****17.8.11.1 Yards**

- (a) **Site offices, staff facilities and buildings for the maintenance of quarry plant and vehicles.**

| | |
|--|------|
| Front Yard | 7.5m |
| Yard adjoining Residential, Public Open Space and Future Urban Development Zones | 5m |

Explanation/Reasons

The purpose of the yard control is to enable a satisfactory standard of screening and landscaping and help mitigate the adverse effects of quarrying such as noise, blasting, vibration and dust nuisances.

Rule**17.8.11.2 Exceptions, Modification or Qualifications to Yard Controls****Coastal and Water Protection Yard**

- (a) Where any site abuts Mean High Water Spring Tide Mark, a Coastal Protection Yard with a width of 25 metres will be required.
- (b) Where a site abuts a river whose bed has an average width of 3 metres or more a Water Protection yard of 10 metres back from the edge of the river will be required.
- (c) All Coastal and Water Protection Yards shall be planted in grass, trees and shrubs or a combination thereof comprising not less than two of these elements.
- (d) Earthworks involving more than a cumulative total of 200m³ in a coastal protection yard shall be a restricted discretionary activity in terms of Rule 9.8.2

Explanation/Reasons

Activities within 25m of the coastline can have a major visual impact and detrimentally affect sensitive water ecosystems. In combination with the control on activities within 50m of the foreshore, the 25m yard provision from MHWS ensure that the important amenity values of the coastline are maintained. Similarly, the 10m yard requirement for rivers will ensure the protection of the visual amenity value and ecological values of the river.

Rule**17.8.11.3 Landscape Treatment and Screening**

All minerals extractions sites shall be landscaped with planting and buffer, bunds or other screening considered appropriate by Council, designed to mitigate noise and visual impacts from public view. A maintenance programme for planting and fencing shall be provided for protection from dangerous or potentially dangerous features.

Site rehabilitation shall be progressive where practicable.

Explanation/Reasons

The landscape treatment and screening controls will help to reduce the visual impact of mineral extraction activities on adjoining properties and help ensure the safety of the mineral extraction site.

Rule**17.8.11.4 Noise**

Where mineral extraction activities are located within the Quarry Zone the following noise standards apply when measured at or within the boundary of any adjacent site except that the noise limits specified in Rule 17.8.11.4 may be exceeded by a maximum of 10dBA during the day time period only for sporting, recreational and cultural activities, provided that such activities do not occur more than 2 times in any 12 month period and for a period of not more than 3 hours on any single occasion (the day time period is defined as 7.00am to 10.00pm).

TABLE 17.8.1 NOISE CONTROLS FOR MINERAL EXTRACTION ACTIVITIES IN QUARRY ZONES

| ACTIVITY | AVERAGE MAXIMUM LEVEL | | | MAXIMUM |
|---------------------------------|--|--|--------------------|-------------------------------|
| | L ₁₀ dBA | | | L _{MAX} dBA |
| | MONDAY TO SATURDAY 7.00AM–6.00PM (0700–1800) | MONDAY TO SATURDAY 6.00PM–10.00PM (1800–2200) SUNDAY AND PUBLIC HOLIDAYS 7.00AM–10.00PM (0700–2200) | AT ALL OTHER TIMES | 10.00PM–7.00AM (2200–0700) |
| Business 1 Zone | 55 | 55 | 55 | 75 |
| Business 2,3,4 Zones | 60 | 60 | 60 | 90 |
| Business 5 Zones | 65 | 65 | 65 | 90 |
| Business 6 Zone and Quarry Zone | 70 | 70 | 70 | 90 |

- (a) Where it is not practicable to assess and or measure noise outdoors, internal measurements may be carried out. The internal noise performance standards are those specified in Tables 17.8.1 minus 10 dBA.
- (b) Mineral Extraction activities which require trips by heavy vehicles to be made between 2200–0700 hours and are sited within 50 metres of any site zoned residential, Papakainga and Maori Purpose or Public Open Space must demonstrate that the noise emission generated by the vehicles will comply with the noise performance standards specified in the plan.
- (c) Noise from Blasting
 - (i) The noise created by the use of explosives shall not exceed either a peak overall sound pressure level of 128 dB (i.e. a peak pressure of 0.05 kPa above atmospheric pressure) or alternatively, a peak sound level of 122 dBC. The measurement shall be taken in either case at, or within, the notional boundary of the nearest affected occupied building existing at the time of public notification of this proposed district plan and excluding any building used and occupied as part of a minerals extraction operation.

- (ii) All blasting shall be restricted to between 0700–1800 hours Monday to Saturday inclusive, except in emergencies, provided that the Council may specify more restrictive periods based on such considerations as the proximity of mineral extraction activities to residential areas or to vibration sensitive areas.
- (d) For rules on procedures for the assessment of noise and vibration refer Chapter 5, General Procedures and Rules, Section 5.18.3 and 5.18.4.

Explanation/Reasons

The main purpose of noise controls is to protect the amenity values of areas adjoining the Quarry Zone from the adverse effects of intrusive noise especially from blasting and use of machinery. Noise controls related to blasting recognise the episodic nature of blasting.

Rule

17.8.11.5 Vibration

To ensure that vibration from mineral extraction activities do not cause a significant nuisance, vibration shall not exceed the following average levels:

- (a) At or within the boundary of any adjacent site zoned residential, Papakainga, Maori Purpose or Public Open Space.

| Time | Average Weighted Vibration Level (Wb or Wd) | Maximum Instantaneous Weighted Vibration Level (Wb or Wd) |
|---|---|---|
| Monday to Saturday 7.00am–6.00 pm (0700–1800) | 0.045m/s ² | 1.0 m/s ² |
| At all other times | 0.015m/s ² | 0.05 m/s ² |

- (b) At or within the boundary of any adjacent site zoned business.

| Time | Average Weighted Vibration Level (Wb or Wd) | Maximum Instantaneous Weighted Vibration Level (Wb or Wd) |
|--------------------|---|---|
| At all other times | 0.06m/s ² | 2.0 m/s ² |

- (c) The weighted vibration levels Wb and Wd shall be measured according to BS6841:1987. The average vibration shall be measured over a time period not less than 60 seconds and not longer than 30 minutes. The vibration shall be measured at any point where it is likely to affect the comfort or amenity of persons occupying an adjacent site.
- (d) The quarry operator shall carry out such vibration and air shock measurements as the Council may from time to time require and maintain and make available for inspection such records of measurements as may have been made to ascertain compliance with the above controls.

Explanation/Reasons

The vibration controls recognise that vibration generated by mineral extraction activities can cause discomfort or annoyance when it is transmitted to adjacent sites. Vibration produces complex sensations, the location and character of which vary according to the vibration frequency, direction of vibration and other factors.

Rule**17.8.11.6 Dust**

No mineral extraction activity shall create a dust nuisance.

A dust nuisance will occur if:

- there is visible evidence of suspended solids or particulate matter in the air beyond the site boundary and/or
- there is visible evidence of deposited particulate matter traceable from a dust source settling on the ground, building or structure, on a neighbouring site or water.

Explanation/Reasons

Mineral extraction activities that generate dust have the potential to create significant adverse health effects and nuisance conditions on property. This rule ensures that there are adequate means to identify a dust nuisance so that remedial action can be taken to the satisfaction of Council.

Rule**17.8.11.7 Hazardous Facilities and Substances**

Refer to Hazardous Facilities and Substances Chapter 10.1.

Rule**17.8.11.8 Heritage**

Chapter 6 – Heritage applies.

Explanation/Reasons

Activities provided for in this Chapter can compromise or destroy heritage resources including archaeological sites.

Rule**17.8.11.9 Artificial Lighting and Rules**

Refer to Rule 5.18.2 Chapter 5 — General Procedures

Rule**17.8.11.10 Subdivision**

The Development and Performance Standards of Rule 14.11.16 apply to any land within the Quarry Zone as if it was within the Business 5 or 6 Zone.

Explanation/Reasons

Land which is currently zoned Quarry is likely to be zoned Business 5 or 6 once mineral extraction activities have ceased. It is appropriate therefore to apply a Development and Performance Standard that is consistent with its likely future zoning. The subdivision standards for both the Business 5 and 6 zones specified in Rule 14.11.16 are the same.

17.8.12 Rules — Matters for Control: Controlled Activities**Rule**

17.8.12.1 Council reserves control over the following matters for controlled activity resource consent applications for mineral extraction activities and may impose conditions in respect of each:

- (i) Site Layout
- (ii) Landscape Treatment and Screening
- (iii) Amenity Values
- (iv) Traffic and Access
- (v) Heritage
- (vi) Site Rehabilitation
- (vii) Noise and Vibration
- (viii) Signs
- (ix) Yards

17.8.12.2 When assessing an application for a controlled activity resource consent for mineral extraction activities, the Council will have regard to the following assessment criteria and any relevant matters set out in Section 104 of the Act.

(a) Site Layout

Whether the site layout and development, in particular the extent of extraction areas and development programme, the location of overburden and waste disposal areas, stockpile and distribution areas will internalise adverse effects on the site as far as practicable.

(b) Landscape Treatment and Screening

Whether the proposed mineral extraction activity will ensure that there is an appropriate level of screening to screen the site from public view and enhance safety.

(c) Amenity Values

Whether the proposed activity avoids or mitigates adverse effects of the amenity values of the area, including visual effects.

(d) **Traffic and Access**

Whether the proposed heavy transport route and the transport corridor between the minerals extraction site and the nearest arterial road will minimise the nuisance effects of heavy traffic. Where mineral extraction activities are undertaken adjacent to a proposed or unformed road (in whole or in part) the Council will require that excavation be undertaken to provide for the construction of the carriageway, berms and batters of the road to permanent levels. Whether in rural areas an indication of the volume of, and routes to be used by, traffic travelling to and from the site minimises the nuisance effects of heavy traffic.

(e) **Heritage**

Whether the proposed mineral extraction activity would cause damage to, or the destruction of:

- landforms or landscapes which contribute to the heritage values of the city;
- native bush, bird or wildlife habitats;
- areas or landforms with geological, scientific, cultural or archaeological values;
- Whether any land forms or landscapes which would be destroyed as a result of mineral extraction activities are able to be reinstated.

(f) **Site Rehabilitation**

Whether the site contours, indication of final contours and floor levels and proposals for the co-ordination of final levels of adjoining land, proposals for ultimate drainage of quarried lands and geotechnical assessment of landforms indicate that the land will be capable of use and development once mineral extraction activities have been completed.

(g) **Noise and Vibration**

Whether the proposed mineral extraction activity will mitigate the adverse effects of intrusive noise and vibration at the site boundary as far as practicable.

Whether there are activities in the vicinity which could be sensitive to noise and vibration effects from blasting.

(h) **Signs**

Whether the signs will detract from the visual amenity values of surrounding activities.

(i) **Yards**

Whether the proposed mineral extraction activities or business activities using quarried material require sufficient distance along each site boundary which is not quarried to ensure that:

- (a) final levels coincide with existing levels or proposed final levels on adjoining sites; and
- (b) the stability of the land and that of adjoining sites is maintained for such purposes to which the land may be subsequently put; and

- (c) the visual effects on immediately adjoining residential, public open space or future urban zones, or coastal water or rivers, are adequately mitigated by landscaping, fencing or similar other methods, where practicable within the required yard.

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17.8.13 Assessment Criteria: Discretionary Activities

17.8.13.1 All activities listed as Discretionary Activities in the Quarry Zone shall be assessed against the following assessment criteria in addition to any relevant matters specified in Rule 14.14 and in Section 104 of the Resource Management Act 1991.

(a) Effects on the existing character of the locality and amenity values:

- (i) Whether the proposal will have an adverse effect on any sensitive activities in the vicinity including residential, Papakainga and Maori Purpose; Public Open Space.
- (ii) Whether the proposal will have adverse effect on landforms, landscapes, or areas of visual or scenic worth which contribute to the amenity values of the City, particularly where those areas are located on the coast or along visually prominent ridgelines.
- (iii) Whether the proposal will have adverse effects on native bush, bird or wildlife habitats including the ecology of areas in the vicinity of mineral extraction activities.
- (iv) Whether the proposal will have adverse effects on areas with scientific, cultural or archaeological value.

The Council shall assess the significance of the affected area and the degree of damage which would result from the mineral extraction activities, and may wholly or partly limit the extent of mineral extraction activities in these areas.

(b) Effects on Quarrying Operations

- (i) Whether the activity is likely to place unreasonable pressure on the extractive process with regard to in-zone safety and amenity values for example whether new activities would impose higher environmental standards for vibration, noise and dust.
- (ii) Whether there are appropriate separation distances between any buildings and structures to ensure both safety and continued quarry processes;
- (iii) Whether activities located in the zone can occur without detriment to the existing extraction process;
- (iv) Whether any new activity causes adverse effects on the security of the balance of the site to be used for Quarrying.

(c) Effects on Efficient use of Land for Mineral Extraction Activities

- (i) Whether any buildings and structures are temporary and capable of removal as part of any proposal;

- (ii) Whether the existing mineral resource has been extracted from the affected site, and whether this is demonstrated by a geological or other appropriate assessment.

(d) Effects on Traffic and Access

- (i) Whether the proposal can accommodate all parking on-site and in such a location to avoid conflict with any quarry operation;
- (ii) Whether entrance and egress points to the site are separate from those used by the quarry and prevent conflict and ensure safety.

