

ATTACHMENT A – OPERATIVE AUCKLAND REGIONAL POLICY STATEMENT

13.1 Introduction

Minerals are essential for the development of the Region. Minerals of economic value which occur in the Auckland Region are primarily aggregates which are used by the construction industry. Other minerals do occur (e.g., ilmenite in the sands on the Region's west coast, and silica sand on land in the vicinity of the Kaipara Harbour) but are not currently the subject of significant extractive activities.

Most mineral deposits are fixed in location, unevenly distributed, and generally a non-renewable resource. The transportation of minerals involves high monetary costs and a significant environmental impact. Adverse environmental effects may also result from the extraction of minerals, and some of these effects may be significant. Consumption of aggregates and other mineral products is correlated with population growth and the form and rate of urban development. Even during periods of low growth, the maintenance of infrastructure and buildings ensures a continuing demand for mineral products. Average consumption of 5.7 tonnes per person per annum occurred in the 1986 to 1991 period. With the Region's population already in excess of 1 million by 1995 and expected to grow, a sustained demand for aggregates is expected.

There are some 60 quarries in the Region, producing rock, sand and shingle. Most of these are small, with the great majority of production coming from a few large quarries. Construction for housing, industrial development and infrastructure, to support continued growth of the Region's population gives rise to a steady demand for aggregates within the Region.

Section 5(2) of the RM Act promotes the management of the use, development and protection of natural and physical resources (including minerals) 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. However, section 5(2)(a) of the RM Act excludes minerals from the requirement to sustain the potential to meet the reasonably foreseeable needs of future generations.

In terms of section 30 of the Act, activities involving exploration for, or extraction of, minerals give rise to a range of issues including soil conservation, discharges of contaminants to air and water, and therefore come within the functions for which regional councils have

responsibility. In addition, by virtue of section 30(d)(ii) extractive activities in the CMA are controlled by regional councils in conjunction with the Minister of Conservation.

In terms of section 31 of the Act, the effects of mineral extraction as a land use (such as noise, vibration, visual effects including glare, traffic generation) are controlled by TAs.

The granting of permits to extract minerals which are owned by the Crown (petroleum, coal, precious metals and other Crown owned minerals) is controlled by the Ministry of Commerce through the provisions of the Crown Minerals Act 1991. That Act is concerned with achieving efficient use of those resources and providing a financial return to the Crown as owners of the resource. The extraction of shingle, sand and shell from the CMA is the only allocation function in terms of minerals which occurs under the RM Act.

13.2 Issues

13.2.1 Mineral extraction can have a range of adverse effects on the environment

Extraction of minerals involves processes which create effects such as sediment laden water, noise and vibration. These effects can be site specific, off-site, short- or long-term, and/or cumulative. The relationship of Maori and their traditions and culture with their ancestral taonga may also be adversely affected. Extractive operations often have drastic effects on landforms, and these may place limitations on the use of sites after extraction activities cease. Extraction processes need to be planned and managed carefully. Some of the adverse effects can be remedied or mitigated. Spent extraction sites may present ongoing problems in terms of reduced amenity values, hazards to public safety or health, and damage to natural values. It is seldom practicable to restore extraction sites to their original state. Early planning for after-use can avoid or mitigate many of these effects and enable some flexibility of long-term use of sites when extraction activities cease. Spent extraction sites offer an opportunity for community amenities to be provided, e.g., Mt Smart and Eden Gardens, or wildlife habitats to be established. Some effects of mining, such as spoil dumps, may need to be managed long after the activity has finished.

In the Hauraki Gulf Islands and in particular on Great Barrier Island, mining, other than quarrying, is not considered to be an appropriate activity in terms of the wider environmental outcomes sought through this policy statement.

13.2.2 Competing activities and values can impose increased environmental and monetary costs on the community for minerals which are needed for development in the Region. This also gives rise to inter-regional issues, as the Auckland Region becomes increasingly dependent on the mineral resources of adjacent regions

Sources of aggregates within or close to the city have largely been worked out, or extractive activities curtailed because of nearby urban development and rising community expectations regarding environmental quality. In addition, changes in community values may remove some sources (such as Auckland's volcanic cones) from consideration. There is, however, a sustained demand in the Auckland Region for aggregates for construction and maintenance purposes, and this must now be met from sources more distant from urban Auckland.

The Auckland Region is becoming increasingly dependent on the aggregate resources of adjacent regions. Transporting large volumes of aggregates (Auckland's annual consumption is of the order of 6 million tonnes) involves high monetary costs, in addition to the costs of extraction, and a significant environmental impact, for both Auckland and adjacent regions. In these terms, cost is a function of the distance of users of aggregates from the point of extraction. There are existing and potential sources for extraction of aggregates in the Region, however, which could provide for Auckland's requirements for many years to come. Protection of these deposits to ensure their continued availability is a significant factor to be considered in managing the form and direction of development in the Region.

13.3 Objectives

1. *To avoid, remedy, or mitigate the adverse effects on the environment of mineral prospecting, exploration, extraction, processing and transportation.*

2. *To ensure that mineral extraction activities and mineral deposits which are presently or potentially valuable for development in the Region are not unnecessarily compromised, and the region's need for rock material continues to be met.*

13.4 Policies, Methods and Reasons

13.4.1 Policies

Policies 1 and 3 below give effect to Objective 13.3-1. Policies 2 and 4 give effect to Objective 13.3-2.

1. *Mineral prospecting, exploration, extraction and processing will be avoided in those locations where these activities would:*

- (i) *have significant adverse effect on the significant values of:*

- (a) *natural or cultural heritage,*
- (b) *the natural character of the coastal environment (including the coastal marine area) wetlands, and lakes and rivers and their margins,*

- (ii) *have significant adverse effects on elite land,*
- (iii) *exacerbate the effects of natural hazards.*

(Refer to Chapter 6 – Heritage and Chapter 7 – Coastal Environment)

See also Chapter 2 – Regional Overview and Strategic Direction; Chapter 3 – Matters of Significance to Iwi; Chapter 6 – Heritage; Chapter 7 – Coastal Environment; Chapter 8 – Water Quality; Chapter 10 – Air Quality; Chapter 11 – Natural Hazards; and Chapter 12 – Soil Conservation.

2. *The development and use of land in the Region will be managed so as to:*

- (i) *Protect existing mineral extraction sites from activities which would unduly limit their operations, to the detriment of the regional environment, including its economy.*

- (ii) *Protect areas of minerals which have the potential to provide cost-effectively for the Region's future needs from activities which may compromise the ability to extract, or provide access to, those deposits.*

- (iii) *Provide for the option to extract mineral resources during the development, or redevelopment of urban areas.*

3. *Mineral extraction and processing, including remedial measures, and long-term management and use of sites after mineral extraction ceases, will be planned and undertaken in ways which avoid or mitigate adverse effects on the environment.*
4. *Minerals management shall be integrated and co-ordinated between the ARC and TAs within the Auckland Region and with adjoining regional and territorial councils.*

13.4.2 Methods

1. *The ARC will prepare:*

- (i) *An evaluation of:*

- (a) *the location of actual and known potential mineral resources available to the Region;*
 - (b) *the foreseeable demand for mineral resources of the Region.*

- (ii) *An assessment of the effects which extraction activities have or are likely to have on:*

- (a) *pollutive discharges to land, water or air;*
 - (b) *ground and surface water flows;*
 - (c) *the coastal environment;*
 - (d) *the transportation of minerals;*
 - (e) *significant natural heritage resources and intrinsic values of ecosystems;*
 - (f) *visual and amenity values;*
 - (g) *the Regional economy;*
 - (h) *significant cultural heritage values, including places and features of value to Iwi;*
 - (i) *prime agricultural land.*

2. *The ARC will, on completion of the process outlined in Method 13.4.2 (1) above, review the Policies and/or Methods in this chapter in the light of the additional information and determine whether regional plan provisions are the most appropriate mechanism to record and implement policy that is derived from this process.*
3. *District plans and any relevant regional plans will contain provisions requiring mineral extractors to provide for the use of the site after extraction processes cease, so as to minimise present and*

future adverse effects on the environment. The fulfilment of such rehabilitation and aftercare responsibilities shall be secured by means of bonds or like measures.

4. *District plans and any relevant regional plans will make provision for and manage mineral prospecting, exploration, extraction, processing and the transportation of minerals. Such provisions could include rules which allow, regulate or prohibit mineral extraction activities.*
5. *District plans and any relevant regional plans will make provision for the potential extraction of mineral resources should they become available through the development, or redevelopment of urban areas.*
6. *District plans and any relevant regional plans, will include the following criteria for assessing proposals:*
 - (i) *The extent to which extraction methods and operations make efficient use of the resource*
 - (ii) *The extent to which reuse can be made of existing material.*
 - (iii) *The extent to which alternative sources of suitable material are reasonably available, particularly where seabed, lakebed or riverbed is involved.*
7. *The ARC will promote the options available for the reuse and recycling of mineral resources, including alternative sources, and make this information available to the TAs and general public.*
8. *The ARC will support policy facilitating the continuing availability of aggregate resources (where appropriate) in adjacent regions.*

13.4.3 Reasons

There will continue to be competition for resources between mineral extraction activities, and other activities and values. Changing activity patterns and values have led to extractive activities having to utilise mineral deposits at increasing distances from urban Auckland. This tendency is likely to continue, but its adverse effects (in terms of premature abandonment of extraction sites, the opening of additional sites, and the added costs of extraction and transport) can be reduced.

This can be done by ensuring that new extraction operations and locations in the Region, which may provide a future supply of minerals close to the market, and are not impacting on significant natural or cultural resource values, and existing extraction operations, are identified and their present and potential value to the Regional community considered in the processes of managing growth and change.

The Regional evaluation will identify appropriate mineral extraction areas for protection on one hand, and highly valued and Regional resource areas on the other, where extraction activities would not promote the sustainable management of other resources. Mapping at a scale sufficient to identify mineral extraction and natural physical resource areas will be necessary. Mineral resources (particularly aggregate) outside the Region will increasingly be relied on to provide Auckland's needs. The significance and availability of these resources also need to be considered when evaluating whether the Region's resources will be sufficient to meet foreseeable demand.

Extraction of sand from the Waikato River bed (Waikato Region) will cease in the near future. This is likely to increase the demand for extraction of sand and shingle from within the CMA of the Auckland Region. There are significant sand resources on the western and north eastern coasts of the Region. The natural processes of coastal erosion and accretion are susceptible to human interference, and coastal areas have high natural resource and amenity values. Although marine sand is in some instances a naturally replenishing resource, it is also a very sensitive one, so extraction must be managed cautiously.

Mineral extraction and processing activities inevitably have an environmental impact. Adverse effects may include noise and dust, danger and vibration from blasting, alteration to groundwater flows and water quality effects, elimination of habitat and vegetative communities, impact on Maori ancestral taonga, impact on agriculture and recreation, long-term scarring and alteration to the natural landform and after-use effects. Some future sites may also involve the loss of prime soils.

It is also important that mineral extraction activities are planned and managed so as to avoid or mitigate both the effects of extraction operations in the short term,

and the long-term consequences of extraction, including restoring extraction sites to a safe condition. Other options, such as habitat restoration, should also be considered at the planning stage. Fulfilment of conditions to bring this about should be secured at the time consents are granted for the extractive activity – The extraction industry should bear any costs involved.

In order to minimise the effects of mineral extraction on the environment, minerals should be used efficiently including reuse, recycling, consideration of alternative sources (e.g., steel slag is already being used for drainage and roading purposes), and use of resources under sites about to be redeveloped. The urban consolidation and infrastructure policies of this RPS are the most effective means of demand management to minimise the effects of mineral extraction.

Regional plan provisions may be necessary if adequate management of the region's mineral resources is not effectively achieved through district plan provisions.

13.5 Environmental Results Anticipated

- (a) Areas with significant environmental values will be protected from mineral extraction activities.
- (b) Existing and future mineral extraction operations will continue, where appropriate, without significant adverse effects.
- (c) The potential to utilise important mineral deposits within the Region will not be unnecessarily compromised.
- (d) Sites where extraction activities have ceased will be left in a condition so that they do not give rise to any significant adverse effects.

13.6 Monitoring

In co-operation with TAs and the mineral extraction industry the following will be monitored:

- (i) Significant effects on the environment caused by mineral extraction, processing and transportation.
- (ii) Assessment of likely requirements for minerals.
- (iii) The extractable potential of existing extraction sites, and significant deposits identified for future utilisation.
- (iv) The output of minerals from extraction activities in the Region.

Operative Waikato Regional Policy Statement (October 2000)

[<<Previous](#) [Index](#) [Next>>](#)

3 Significant Resource Management Issues, Objectives, Policies and Methods

3.14 Minerals

3.14.1 Overview

The Waikato is the most important minerals producing region in New Zealand. Within the Region there are important mineral exploration and development operations including coal, aggregates, gold, sand and limestone. The extent of the mineral resources in the Region is indicated on Map 6.

Coal is a significant resource in the Waikato Region (see Map 6). The Region has the most extensive sub-bituminous coal resources in New Zealand. Over 1.5 million tonnes of coal is produced each year from coal fields at Huntly, Rotowaro, Benneydale and other smaller mines.

Economic aggregate and industrial mineral resources (including limestone, sands and gravels) can be found throughout the Region (see Map 6). These resources include volcanic rocks such as basalt or andesite, greywacke, limestone and sands and gravels. The aggregate resources are put to a wide variety of uses but by far the most significant use is as roading material. In 1993 the Waikato Region produced 4.2 million tonnes of aggregate and industrial minerals. Over 1.8 million tonnes was "exported", mainly to the Auckland and Bay of Plenty Regions. Demand for Waikato aggregates is expected to increase significantly in the coming years as Auckland's available aggregate supply decreases or is made more difficult to exploit due to competition from other land uses.

This aggregate material is necessary for the maintenance of the Region's infrastructure. Some activities associated with the extraction of aggregate such as quarrying can, by their nature, conflict with other neighbouring land use activities such as rural residential land uses.

Precious metals such as gold or silver are found in the Hauraki epithermal zone which has the only producing epithermal goldfield in New Zealand. In 1993, 5.6 tonnes of gold and 25.8 tonnes of silver were produced from this field.

The exploitation of these mineral resources gives rise to two major resource management issues:

- a. access to readily identifiable mineral resource of regional significance (being the ability to extract such resources rather than any access rights to them under the Crown Minerals Act 1991)
- b. potential adverse environmental effects associated with the exploration and development of mineral resources.

Access to mineral resources is governed by factors such as topography, competing values of overlying and neighbouring land uses, climate and the difficulty of extracting the resource. In Auckland, access to significant aggregate supplies has been severely restricted by urban and rural residential development. The ability to extract the Waikato's mineral resources may be affected in the future by other activities in the vicinity which are sensitive to the effects of mineral extraction and which would lead to restraints on the extraction of mineral resources. Conversely, other land uses may be sensitive to the effects of mineral extraction activities.

All mineral exploration and development activities will have some adverse environmental

effects. Land uses, developments or the environment in close proximity to mineral resources may be sensitive to the effects of mineral extraction and may be incompatible with such activities. As a consequence, conflicts between land uses may arise.

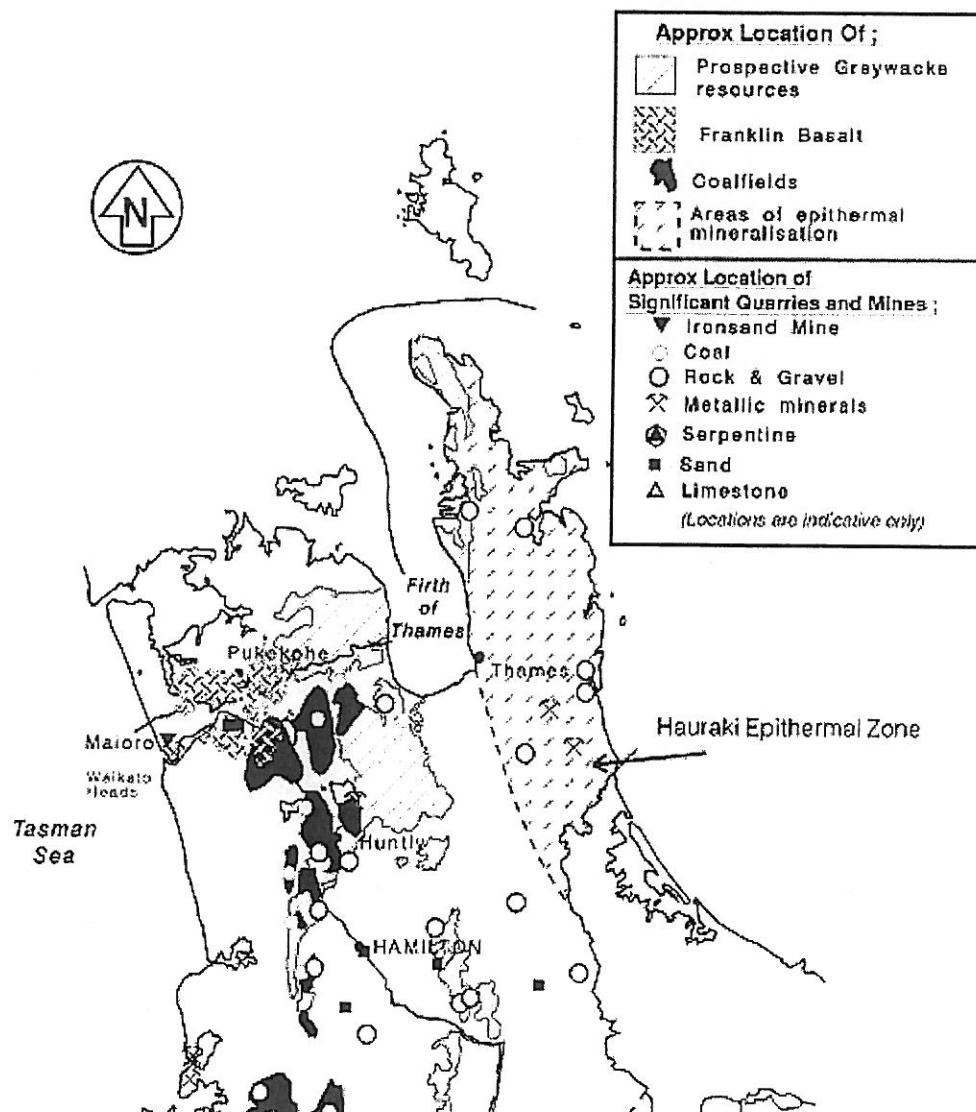
The effects of mining are not dissimilar to a number of other industrial activities. Discharges from mine sites and processing plants can adversely affect water quality, dust and noise nuisances are a common complaint, as is the visual impact of open pit mines. Where precious minerals are being mined, large volumes of potentially hazardous tailings which must be contained in specially engineered landfills can be created.

The management of each adverse effect on specific natural and physical resources is addressed in the resource specific sections of this RPS (e.g. sections 3.3 Land and Soils, 3.4 Water, 3.5 Coast, 3.6 Air).

Summary of Significant Resource Management Issues

The following is a summary of significant resource management issues that have been identified from the overview section on minerals:

1. The ability to extract mineral resources can be compromised through land uses or developments above or in close proximity to mineral deposits.
2. Mineral exploration and development has the potential to produce adverse environmental effects.



Map 6: Indicative Map of Mineral Deposits in the Waikato Region

[<<Previous](#) [Index](#) [Next>>](#)

Copyright Waikato Regional Council © 1999-2006

Date Printed: 23 November 2006

Page: www.ew.govt.nz/policyandplans/rpsintro/rps/RPS3.14.1.htm

Environment Waikato: Box 4010 Hamilton East Fax 07 859 0998 Freephone 0800 800 401

Operative Waikato Regional Policy Statement (October 2000)

[<<Previous](#) [Index](#) [Next>>](#)

3 Significant Resource Management Issues, Objectives, Policies and Methods

3.14 Minerals

3.14.2 The Ability to Extract Mineral Resources

Issue: The ability to extract mineral resources can be compromised through land uses or developments above or in close proximity to mineral deposits.

Objective: The ability to extract mineral resources not unnecessarily restricted by sensitive activities. The ability to extract mineral resources neither prevented nor protected by unnecessary plan provisions.

Principal Reasons for Adopting: Land uses and developments over and near mineral deposits can be incompatible with mineral extraction activities. In practice, this can mean that the ability to extract the minerals may become compromised. When managing natural and physical resources, local authorities should recognise that mineral resources exist only in certain locations. While the adverse effects of mineral extraction activities are addressed specifically in section 3.14.3, the potential conflicts between incompatible land uses overlying and neighbouring mineral deposits and mineral extraction activities must also be addressed.

The use of regulatory tools such as zoning to either enable the use and development of mineral resources or to enable other activities which are sensitive to the effects of mineral use and development can exacerbate these constraints or create new ones. Such tools should not be used unless they are necessary either to control adverse effects or to avoid conflicts between land uses arising.

Policy One: The Ability to Extract Mineral Resources

Manage the use and development of land and mineral resources in a manner that:

- a. recognises that the extraction of mineral resources may be incompatible with other land uses or resources;
- b. recognises that other activities may be incompatible with the extraction of mineral resources;
- c. imposes only controls that are necessary to address the adverse environmental effects of activities and likely conflicts between incompatible activities;

Implementation Method:

1. When developing regional and district plans or determining resource consent applications, consider the effects of allowing incompatible activities to occur above or adjacent to known mineral resources on the ability to extract those resources.

Explanation and Principal Reasons for Adopting:

Policy One identifies that some minerals are important for enabling people and communities to provide for their social, economic and cultural well being and for meeting the reasonably foreseeable needs of future generations. The ability to use and develop these mineral resources can be compromised by allowing incompatible activities to locate over or near mineral deposits. Conversely, the effects of mineral extraction activities can restrict the potential uses and values of neighbouring land. In some cases, the sensitivity of

neighbouring land uses or resources may affect whether access to the mineral resource is appropriate. Policy One has been adopted to ensure that these effects are considered without necessarily giving special status to a particular land use. To implement this policy, decision-makers will need to consider both the beneficial and adverse effects of the conflicting activities prior to making decisions about the use and development of natural and physical resources.

The implementation method identifies that the appropriate forum for considering conflicts is at the regional/district plan and resource consent levels. In implementing this section, decision-makers may need to differentiate between existing sites and prospective mineral resources when preparing plans or granting land use consents.

Existing mineral extraction sites are important to the economy of the Waikato Region and other neighbouring regions. The effects of conflicting land uses near these existing sites should be considered before decisions are made. If possible, means of avoiding or mitigating these effects should be identified and methods provided to achieve this.

In a more strategic sense, when developing plans, decision-makers should consider the effects of incompatible activities on the future development of other known mineral resources, and ensure that these potential future uses of the resource are taken into account. This should ensure that conflicts between land uses are minimised.

Environmental Results Anticipated

1. Minimal incidences of conflict between incompatible land uses.
2. Effects based regulatory control of activities in the vicinity of mineral resources.
3. Integrated management of minerals and other resources, having regard to the site specific constraints of minerals.
4. Minimal use of regulatory instruments to secure the ability to extract mineral resources and the industry taking a strategic approach to securing its long term interests.

[<<Previous](#) [Index](#) [Next>>](#)

Copyright Waikato Regional Council © 1999-2006

Date Printed: 23 November 2006

Page: www.ew.govt.nz/policyandplans/rpsintro/rps/RPS3.14.2.htm

Environment Waikato: Box 4010 Hamilton East Fax 07 859 0998 Freephone 0800 800 401

Operative Waikato Regional Policy Statement (October 2000)

[<<Previous](#) [Index](#) [Next>>](#)

3 Significant Resource Management Issues, Objectives, Policies and Methods

3.14 Minerals

3.14.3 Adverse Effects of Mineral Exploration and Developments

Issue: Mineral exploration and development has the potential to produce adverse environmental effects.

Objective: Integrated management of the adverse environmental effects of mineral exploration and development.

Principal Reasons for Adopting: Mineral exploration and development, like many industrial activities, has the potential to cause significant adverse environmental effects. These activities can adversely affect a number of natural and physical resources. Objectives and policies with respect to the management of adverse effects will vary depending on the resource in question. In particular, mineral exploration and development activities are addressed in the objectives and policies in the individual sections of the RPS (e.g. sections 3.3 Land and Soils, 3.4 Water and 3.6 Air). Any activity involving mineral exploration and development will need to satisfy the community and local authorities that it can be undertaken in a manner that is consistent with the direction provided in this RPS.

Policy One: Adverse Environmental Effects

The effects of mineral exploration and development managed:

- a. in accordance with the objectives and policies contained within the RPS;
- b. to recognise that some areas may be unsuitable for mining operations; and
- c. to have regard to the acid drainage potential, amongst other issues, of sulphide bearing rock.

Implementation Methods:

1. Through regional plans, district plans and resource consents ensure that the adverse effects of activities such as mineral exploration and development are addressed in an integrated and effects based fashion.
2. When developing regional and district plans, have regard to the potential adverse effects of mineral extraction.

Explanation and Principal Reasons for Adopting:

It is not appropriate to give any activity special status over other activities. If specific objectives and policies relating to mineral exploration and development were used in the RPS, then the activity of mineral exploration and development would be singled out for special attention even though there are other activities that can cause similar adverse environmental effects. Instead, the RPS is an activity neutral, effects based document that seeks to address the adverse environmental effects of activities rather than giving special treatment to any particular activity. The adverse effects of mineral exploration and development are addressed by the objectives and policies in the following sections of the RPS: 3.3 Land and Soils, 3.4 Water, 3.5 Coast, 3.6 Air, 3.8 Natural Hazards, 3.9 Wastes, 3.10 Hazardous Substances, 3.11 Plants and Animals (Biodiversity), 3.15 Heritage.

Environmental Results Anticipated

1. Increased community awareness that the adverse effects of mineral exploration and development activities are being addressed in an integrated and effects based manner.
2. Increased community involvement in dealing with the adverse environmental effects of mineral development.

[<<Previous](#) [Index](#) [Next>>](#)

Copyright Waikato Regional Council © 1999-2006

Date Printed: 23 November 2006

Page: www.ew.govt.nz/policyandplans/rpsintro/rps/RPS3.14.3.htm

Environment Waikato: Box 4010 Hamilton East Fax 07 859 0998 Freephone 0800 800 401