

SECTION 13.2 MINERAL, AGGREGATE AND HYDROCARBON EXTRACTION DISTRICT WIDE ACTIVITY

13.2.1 INTRODUCTION

Mineral resources include all metallic and non-metallic and fuel minerals, precious stones, industrial rocks and building stones that occur beneath or at the surface of the earth. They play a vital role in the social, economic and cultural well being of the District's communities. Buildings, roads and many surfaces used for business, farming, education and recreation depend on a continuing supply of aggregates of various kinds. Aggregates of appropriate types must be located within a reasonable distance from centres of population and points of use. Land uses such as viticulture may also compete for mineral resources, such as gravel resources on the Heretaunga Plains which are recognised as valuable for growing high quality grapes.

In the Hastings District, there are no known economic metallic mineral, oil or gas deposits. This does not however preclude the discovery of economic deposits in the future. The primary mineral resources in the District are greywacke gravel and limestone, and most gravel extracted in the District is from river sources.

Prior to the Resource Management Act 1991(RMA), the statutory controls on the winning of mineral resources was fragmented. The Mining Act, the Petroleum Act, and the Coal Mines Act all contained different approaches. The RMA has superseded these, and while the allocation and pricing of crown minerals is controlled by the Crown Minerals Act 1991, responsibility for controlling the effects of the physical extraction of these minerals (as well as privately owned minerals) lies under the Resource Management Act. For example, while a permit for prospecting, exploration or mining of crown owned minerals is required under the Crown Minerals Act (through the Minister of Commerce) none of these activities are allowed to be carried out until the applicant has satisfied the Minister that they have obtained the permission of the landowner to have access to the site, and have obtained all necessary resource consents from the Regional or District Council. The District Council therefore has the ability to control where and how mineral extraction may occur in the District through the Objectives, Policies and Methods of the District Plan.

It is recognised that mineral, aggregate and hydrocarbon extraction has the potential to cause adverse effects on the environment. While Section 5 of the Resource Management Act 1991 provides for natural and physical resources to be utilised for community benefit, it clearly requires that such utilisation be in a form that protects resources for future generations, safeguards the life supporting capacity of air, water, soil and ecosystems, and avoids, remedies or mitigates adverse environmental effects. The Act acknowledges that the concept of sustainability cannot be applied with respect to protecting mineral resources for future generations (its very use reduces the quantities of mineral resources available for the future), but that the other concepts of sustainability still apply and need to be provided for.

13.2.2 RESOURCE MANAGEMENT ISSUES

- ***Prospecting is essentially a minimum impact activity.***

Prospecting of minerals involves the preliminary investigation of mineral resources over a wide area, to identify any smaller areas which may warrant further, closer investigation. Generally the level of environmental impact from activities associated with prospecting is minor.

- ***Compared with prospecting, the effects of exploration activities can be more significant.***

Exploration of minerals involves a greater level of investigation, including identifying the scale and composition of a mineral deposit and assessing the feasibility of mining a resource. Potential effects on the environment may include vegetation and land disturbance, noise, visual impact, and waste water discharge. It may also require the construction of new access tracks or the upgrading of existing tracks on the site.

- ***Mining activities can have significant adverse effects on the environment.***

Mining is the extraction from the ground of any commercially valuable mineral resource, following the discovery of that resource through exploration. Mining activities include, opencast mining; underground mining; alluvial mining, including river gravel extraction and dredging; and mining in the coastal marine area. Mining can have significant effects on the environment, including visual impacts, conflicts with adjoining land use activities, and the potential for irreversible damage to natural landforms, landscapes, ecosystems, and cultural or heritage sites. The future potential use of the land, once the mining activity is finished, may also be limited.

- ***Mineral, aggregate and hydrocarbon extraction activities can add diversity to the District economy.***

Greater diversity of activities in the District can benefit the whole community and can reduce dependency on single industries.

- ***Planning for the future use of land should take into account known mineral deposits.***

Where there are known areas of mineral deposits, it is important that the types of land use activities allowed to establish in those areas do not prevent the future extraction of these mineral deposits.

- ***River based gravel extraction is important for river and flood management purposes.***

The extraction of gravel from rivers is an essential activity which assists the Regional Council in carrying out its functions for river and flood management in the District. Each year the Regional Council identifies where, along the rivers, gravel extraction is necessary, and it determines what amounts of gravel need to be extracted. The ability to fulfil these quotas may be threatened if river based extraction has to compete with land-based extraction. However, in balancing the necessity of river based extraction, regard will be made to the diversifying of aggregate sources, the recognition of the importance of aggregate, the economic well being of the community and any increase or decrease in the availability of river gravel for aggregate purposes generally.

- ***Aggregate supplies should be located within a reasonable distance from centres of population and points of end use.***

The ability to source aggregate close to where it is needed is important in keeping costs to a minimum. If suppliers are required to travel further for aggregate, then there is a cost incurred by the whole community.

- ***Landowners in the Rural and Plains areas need to be able to extract small amounts of sand, gravel, metal and other minerals from their properties.***

The ability to extract small amounts of aggregate or minerals is important for landowners, such as farmers, who may, for example, require gravel to construct internal roads on their farms.

- ***Exploration and mining activities can potentially have significant adverse effects on the ability of land overlying the Heretaunga Plains Unconfined Aquifer, to support a range of productive land use activities.***

The combination of the underlying aquifer, the depth of the overlying gravels, the topsoil, and the climate of the area of land located over the Heretaunga Plains Unconfined Aquifer, all create a unique resource in the District which is valuable for supporting a range of horticultural and viticultural activities. Exploration and mining in this area can result in permanent changes to its physical characteristics and can jeopardise its ability to continue to support this range of activities.

13.2.3 OBJECTIVES

- *MO1 To provide for the investigation of the Hastings District's mineral resources.*
- *MO2 To provide for the efficient and economic utilisation of the mineral resources of the Hastings District, in order to meet international, national and district demands for such resources, and to meet the social and economic needs of the Hastings District.*
- *MO3 To ensure that the investigation of the Hastings District's mineral resources, and their utilisation occurs in such a manner that the life supporting capacity of air, water, soil and ecosystems is safeguarded and that significant adverse effects of prospecting, exploration or mining and associated activities on the environment are avoided, remedied or mitigated.*
- *MO4 To ensure that future settlement patterns take into account the location of known mineral resources.*
- *MO5 To ensure that the unique physical characteristics of the land located over the Heretaunga Plains Unconfined Aquifer are maintained or enhanced or ensure that it can continue to sustain a range of land use activities.*

13.2.4 POLICIES

- **MP1 Allow the prospecting of minerals where the effects on the environment are likely to be minor.**

Explanation

Standards are incorporated to control the scale, operation, and location of prospecting activities to ensure that any potential adverse effects are avoided, remedied or mitigated.

- **MP2 Control exploration and mining activities to ensure that they will not adversely affect the natural and physical environment, as well as the amenity of the community and adjoining land uses.**

Explanation

Exploration and mining activities are recognised as having the potential to cause more significant adverse effects on the environment. The District Plan therefore exercises greater control over these activities.

- MP3 Prevent exploration or mining activities in areas where adverse effects on the environment cannot be avoided, remedied, or mitigated.**

Explanation

In assessing proposals, consideration will be given to whether they will result in permanent or irreversible damage to the environment, or whether the site can be reinstated so that it will be capable of supporting other land use activities.

- MP4 Encourage the mineral extraction industry to inform Council about known mineral deposits in the District with potential for exploration or mining.**

Explanation

As new potential sites of mineral deposits become known in the District, the mineral extraction industry will be encouraged to inform Council about the location, type and scale of these (including the feasibility of their commercial utilisation) so that they may be taken into consideration when developing policies for land use activities in those areas.

- MP5 Recognise the importance of river based gravel extraction for river and flood management purposes and the concurrent need for gravel supplies to be conveniently located and of appropriate quality.**

Explanation

In the interests of sustainably managing rivers, it is considered appropriate that extraction of river based gravel resources be encouraged in preference to land based resources where appropriate. It is however recognised that market demand will ultimately influence whether gravel extractors will wish to utilise available river based resources or not. The need for aggregate supplies to be located within a reasonable distance from centres of population and points of use and the quality of the aggregate supply to meet the economic needs of the community are also matters that must be balanced in recognising the importance of river based gravel extraction.

- MP6 Provide for the needs of landowners in the Rural and Plains Zones to extract aggregates or minerals for use on their properties.**

Explanation

It is recognised that landowners in the Rural and Plains Zones may need to extract small quantities of aggregates or minerals from their properties for uses ancillary to permitted activities on their properties.

- MP7 Control exploration and mining activities on land located over the Heretaunga Plains Unconfined Aquifer, to ensure that the land resource can be rehabilitated to support a range of productive land use activities.**

Explanation

Exploration and mining activities are recognised as having the potential to permanently change the physical characteristics of the land located over the Heretaunga Plains Unconfined Aquifer. The depth of any excavations in this area will be limited to ensure that the water table is protected. Applications for resource consents for exploration or mining activities will also be required to demonstrate that the land can be rehabilitated to ensure that it will support a range of productive land use activities.

13.2.5 METHODS

These Objectives and Policies will be implemented through the following Methods:

- **Hastings District Plan**

Mineral, Aggregate and Hydrocarbon Extraction DWA: This section establishes Policies and Rules governing the prospecting, exploration and mining throughout the District, and integrates the opportunity to mine minerals with the responsibility of Council to identify and protect the environment from the effect of mining.

Heretaunga Plains Unconfined Aquifer RMU (Section 12.1): This section establishes Objectives, Policies and Methods to protect this resource from the effects of activities above it. Any mining or gravel extraction undertaken over the unconfined aquifer will be strictly controlled.

Hazardous Substances DWA (Section 13.8): This section controls the storage, handling and use of hazardous substances. Any hazardous substances employed as part of any extraction activity will need to comply with the provisions of the rules contained in that section.

- **Establishment of a Minerals Database and Progressive Mapping of known mineral resources on the Council's G.I.S. system, in consultation with interest groups**

Information should include the type and scale of minerals and the feasibility of their commercial utilisation.

- **Liaison with the Hawke's Bay Regional Council**

The Council will consult the Hawke's Bay Regional Council's Regional Policy Statement, River Bed Gravel Extraction Plan, Water Plan, and the Air Plan and to ensure that the outcome sought by both Plans remain consistent.

- **Land Information Memorandums**

When Land Information Memorandum (LIM) are requested for sites located within 500m of an existing mineral, aggregate or hydrocarbon extraction or processing site, the LIM shall identify the activity being undertaken and any particular conditions regarding its use and operation. The LIM shall also state that mineral production activities are dependent on particular resources and residents moving into the area will need to recognise that extraction and processing are accepted activities, when operating in accordance with the provisions of the District Plan or any relevant Resource Consent.

- **Financial Contributions**

- **Monitoring and Information requirements**

Monitoring will be undertaken to ensure that the methods outlined above continue to achieve the Objectives and Policies of the District Plan. Monitoring of the conditions of resource consents will also be undertaken by Council in accordance with Section 35 of the Act, and the Resource Consent Monitoring Strategy.

13.2.6 ANTICIPATED OUTCOMES

It is anticipated that the following specific outcomes will be achieved:

- Greater diversity of the District economy by the efficient and effective use of the District's mineral resources.
- Maintenance of the amenity of the community and adjoining land uses.
- Sustainable management of rivers.
- Information on location of mineral deposits in the District.
- Landowners in Rural and Plains Zones can meet their needs for aggregates and minerals for use on their own properties.

13.2.7 RULES

The activity status and performance standard requirements for the activity may be modified by the specific provisions of individual Resource Management Units (RMUs). It will be necessary to check first whether the activity is located within a RMU. Any activity must first comply with the RMU provisions, before applying the following rules.

13.2.7.1 PERMITTED ACTIVITIES

The following activities shall be permitted, provided that they comply with the General Performance Standards and Terms in Section 13.2.8.

- PROSPECTING
- THE REMOVAL OF RIVER BERM SILT, GRAVEL OR OTHER RIVER CONTROL OR DRAINAGE WORKS CARRIED OUT BY A LOCAL AUTHORITY, EXERCISING ITS POWERS, FUNCTIONS AND DUTIES UNDER THE SOIL CONSERVATION AND RIVERS CONTROL ACT 1941, OR THE LAND DRAINAGE ACT 1908.
- THE EXCAVATION OF UP TO 1000m³ PER PROPERTY PER YEAR OF SAND, GRAVEL, METAL OR EARTH (EXCLUDING TOPSOIL) FROM ANY PROPERTY LOCATED IN THE RURAL ZONE.
- THE EXCAVATION OR REMOVAL OF UP TO 100M³ OF EARTH (INCLUDING TOPSOIL) PER PROPERTY PER YEAR FROM SITES IN ANY RURAL ZONE FOR ANY BUILDING CONSTRUCTION PURPOSES.
- THE EXCAVATION OR REMOVAL OF EARTH (INCLUDING TOPSOIL) FROM SITES IN ANY RESIDENTIAL, COMMERCIAL OR INDUSTRIAL ZONE FOR ANY BUILDING CONSTRUCTION PURPOSES.
- THE EXCAVATION OF UP TO 1000m³ PER PROPERTY PER YEAR OF SAND, GRAVEL, METAL OR EARTH (EXCLUDING TOPSOIL) FROM ANY PROPERTY LOCATED IN THE PLAINS ZONE, BUT EXCLUDING THE REMOVAL FOR SALE OF TOPSOIL OR SAND, GRAVEL, METAL OR EARTH FROM THE PROPERTY.

13.2.7.2 RESTRICTED DISCRETIONARY ACTIVITIES

- (a) For the following activities the Council will restrict the exercise of its discretion to the ability of the activity to achieve the particular Outcome(s) of the General or Specific Performance Standard(s) and Terms which it fails to meet, and the ability of the activity to meet the remaining relevant General or Specific Performance Standards and Terms in Section 13.2.8 and 13.2.9.
- ANY PERMITTED ACTIVITY NOT MEETING ONE OR MORE OF THE GENERAL AND SPECIFIC PERFORMANCE STANDARDS IN SECTION 13.2.8 AND 13.2.9.
- (b) Applications for Restricted Discretionary Activities may be considered without the need to obtain the written approval of affected persons and may be considered without notification. Activities will be assessed and conditions may be imposed in relation to those matters identified in Section 13.2.10 that Council has restricted its discretion over.

13.2.7.3 DISCRETIONARY ACTIVITIES

- (a) The following activities shall be Discretionary Activities, and will be assessed against, but not be restricted to those matters identified in the Assessment Criteria in Section 13.2.10 of the Plan, and any relevant Objectives and Policies of the Section and underlying Zone.
- EXPLORATION
 - MINING

13.2.8 GENERAL PERFORMANCE STANDARDS AND TERMS

The following Performance Standards and Terms apply.

13.2.8.1 NOISE

Activities shall comply with the provisions of Section 14.2 of the District Plan on Noise.

Outcome

The outcomes of Section 14.2 of the District Plan on Noise will be achieved.

13.2.8.2 FLOOD PROTECTION WORKS

- (a) No extraction is to occur within 50 metres of any flood protection or river control structure.
- (b) No significant change is to occur to existing flood overflow paths.

13.2.9 SPECIFIC PERFORMANCE STANDARDS AND TERMS

13.2.9.1 Site Rehabilitation and Revegetation

- (a) Where vegetation clearance occurs, disturbed areas shall be re-pastured or re-vegetated as soon as practicable within the next growing season.

Outcome

Minimisation of disturbance to vegetation.

- (b) Where soil is disturbed by prospecting such areas will be restored and rehabilitated within three months of the activity ceasing.

Outcome

No significant adverse effects of activities on the life-supporting capacity of soils will occur.

13.2.10 ASSESSMENT CRITERIA FOR RESTRICTED DISCRETIONARY AND DISCRETIONARY ACTIVITIES
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Explanation of Assessment Criteria

For Restricted Discretionary Activities, the following identify those matters which Council has restricted its discretion over in assessing resource consent application; For Discretionary Activities, the following identify those matters which Council may assess the activity against. Council's assessment is not however restricted to these matters.

13.2.10.1 LAND DISTURBANCE AND VEGETATION CLEARANCE

- (a) The effects of land disturbance and vegetation clearance will be assessed in terms of their effects on:
- (i) The life-supporting capacity of soils.
 - (ii) Soil erosion and stability.
 - (iii) Natural landforms and contours.
 - (iv) Flora and fauna.
 - (v) Significant cultural, ecological or heritage sites.
- (b) In making an assessment, regard will be had to the following:
- (i) The extent of removal of vegetation, topsoil and subsoils at any one time.
 - (ii) Methods to separate soil horizons during stripping.
 - (iii) Measures to safeguard the life supporting capacity of stockpiled soils.
 - (iv) Rehabilitation of site (including backfilling, re-spreading of subsoil and topsoil, contouring, re-pasturing and re-vegetation).
 - (v) Land capability and potential end uses of the site.
 - (vi) Siting, construction and maintenance of internal access roads.

13.2.10.2 AVAILABILITY OF ALTERNATIVE SOURCES OF MATERIAL

Regard shall be had to the availability of alternative sites of economic sources of material of equivalent quality located within a reasonable distance from centres of population and points of use.

13.2.10.3 NOISE

In assessing the impact of noise, regard shall be had to the noise sensitivity of the receiving environment, including adjacent land uses, where it is proposed to undertake the activity. Consideration will also be given to hours of operation of the activity.

13.2.10.4 VISUAL IMPACT

- (a) The visual effects of the activity will be assessed in terms of its potential effect on:
- (i) The residential or recreational (including tourism) use of land in the vicinity of the activity.
 - (ii) The existing character of the locality and amenity values.
- (b) In making that assessment regard shall be had to:
- (i) The design, scale and location of any structures.
 - (ii) Planting, screening and other amenity treatment to minimise visual impact.
 - (iii) Site location including locality, topography, geographical features, adjoining land uses.
 - (iv) Height of soil stockpiles.
 - (v) Rate and extent of extraction.
 - (vi) Rehabilitation of the site, including contouring, landscaping and re-vegetation.
 - (vii) Lighting - intensity, direction and positioning of lighting in relation to the effects of glare on the surrounding environment and adjacent land uses.

13.2.10.5 VIBRATION

Regard will be had to the effects of vibration from the activity, particularly in respect of the use of explosives.

13.2.10.6 ROADING AND TRANSPORTATION

- (a) The effects of transportation related to the activity will be assessed in terms of its potential effect on the sustainable management of the roading network including:
- (i) Disruption to traffic in the area.
 - (ii) Traffic safety.
 - (iii) Impact on the District roading network.
- (b) In making the assessment, regard shall be had to:
- (i) Design of access.
 - (ii) On-site parking and turning.
 - (iii) The siting and construction standards of on-site roads and tracks.
 - (iv) Maintenance or upgrading of roads or intersections in the vicinity of the activity.
 - (v) Use of speed limits.
 - (vi) Timing of work shifts.

13.2.10.7 PUBLIC ACCESS AND SAFETY

The extent to which public safety can be achieved. In assessing the proposal, regard will be had to methods of restricting public access (including fencing of hazardous areas) and the use of warning signs and sirens.

13.2.10.8 PUBLIC WORKS AND NETWORK UTILITIES

The activity will be assessed in terms of its potential effects on public works and network utilities. Regard will be had to the proximity of the activity to stopbanks, transpower lines, telecommunication facilities and other network utilities and public works, and the extent to which the activity may interfere with the safe and efficient operation or maintenance of those works and utilities.

13.2.10.9 FIRE HAZARD MITIGATION

The ability of the activity to meet fire safety requirements including the possession of public liability insurance to cover the risk of fire.

13.2.10.10 EFFECTS ON OTHER LAND USES AND ADJOINING PROPERTIES

The extent to which the activity will interfere with, or adversely affect, the current use of the land on which the activity is sited, or adjoining land uses. Consideration will be given to any potential effects of the proposed activity on adjoining properties and land uses, such as dust nuisance. Consideration will also be given to methods to avoid adverse effects on land use activities which are allowed in the zone where the activity is located, such as the distance of activities from boundaries, and methods to avoid disturbance to adjoining properties, including livestock, particularly during birthing.

13.2.10.11 HERETAUNGA PLAINS UNCONFINED AQUIFER

The following criteria relates to land located over the Heretaunga Plains Unconfined Aquifer.

- (a) The depth of any excavation in order to ensure a maximum height for the water table below the surface of the land of 5 metres. The maximum height of the water table will be identified as the highest recorded at the site, or at the closest point to the site.
- (b) The ability of the site to be rehabilitated to enable the land to continue to support a range of productive land use activities, after the exploration or mining activity has ceased.

13.2.11 INFORMATION REQUIREMENTS FOR DISCRETIONARY ACTIVITIES

Any application for a resource consent for a Discretionary Activity shall include a management plan describing the scope and nature of the operation including methods to control the effects of extraction and processing. Any application for a resource consent shall include an assessment of the effects of the proposed activity. Applications shall address the matters listed below:

- (a) An assessment of the actual or potential effects of the proposed activity on the environment, in accordance with the Fourth Schedule to the Resource Management Act 1991.
- (b) Site layout including:
 - Extraction areas and a programme for any staged development
 - Areas for processing, stockpiling, distribution of aggregate, overburden disposal, topsoil storage
- (c) Proposals to avoid, remedy or mitigate adverse effects of the activities, particularly in regard to noise, ground vibration, traffic, dust, visual impact and land stability
- (d) Impact on the District roading network.
- (e) For mining proposals, alternative sites and sources of material that have been considered.
- (f) Description of permits and consents required under the Crown Minerals Act 1991 and other legislation and from the Hawke's Bay Regional Council and other relevant Local Authorities. For privately owned minerals, proof that the consent of the landowner has been obtained.
- (g) Proposals for the clearance of vegetation, including the location (maps and plans may be required).
- (h) Fire Safety requirements.
- (i) Possible future use of the property.
- (j) Proposals and timeframes for progressive restoration of parts of, and the whole of, the site to a reasonably natural state, or appropriate modified state, including levelling and backfilling, planting of grass, trees or other vegetation, and the removal of structures, plant and machinery.

Council may require applicants to provide more detailed investigations of potential effects on the environment by way of environmental impact reports (prepared at the expense of the applicant). The level of detail required will depend on the scale and nature of the proposal as well as the magnitude and extent of anticipated effects on the environment.