



# ENVIRONMENT TOPICS

## AIR QUALITY MANAGEMENT

### Dust

#### **Introduction**

The Hawke's Bay region enjoys relatively clean air due to its geography, a low population density and only a few major industrial emissions. However, at certain times of the year, as a result of seasonal activities, dust can become a localised problem.

#### **What is dust?**

Dust is made up of a wide range of fine solids or aerosols. Dust can be wind generated (e.g. from exposed soil or bulk storage) or discharged by certain activities (e.g. abrasive blasting).

#### **Sources of Dust**

The main activities generating dust in the Hawke's Bay Region are:

- cropping and other land use activities on light, easily wind-blown soils
- quarrying, rock crushing, gravel extraction, earthworks and construction works
- the use of unsealed roads and yards
- combustion processes
- abrasive blasting and
- the manufacture and storage of fertiliser, sawdust and other bulk products.

The generation of dust from exposed soils is of particular concern during dry, windy weather. Unsealed roads can also be very dusty.

Dust can also be generated from natural sources such as volcanic activity and wind-blown dust from naturally exposed land, the coastal area and forests. Pollen from the pine plantations on the Rangitaiki Plains and elsewhere in the region, is clearly visible in Hawke's Bay during spring.



*Dust from exposed cultivated soils.*



*Dust from sandblasting.*

***Why are we worried?***

Dust can cause health problems such as eye irritations and breathing problems. Dust may also reduce visibility, be inconvenient or disrupt outdoor activities, and result in soiling of, or damage to, property and crops.

Intense short term exposure to dust may cause significant adverse health effects, such as loss of lung function, respiratory problems, and loss of capacity to resist infection. These occur mainly with asthmatics, small children, and the elderly. Chronic exposure to dust can result in death.

***What is the best way to control dust?***

Dust from cropping is one of the issues that the Regional Council's Sustainable Land Management Programme is seeking to address through the application of different methods of soil cultivation and crop planting.

For the control of dust on unsealed roads and yard areas, the use of waste oil is no longer allowed. Therefore alternative means of minimising or eliminating dust must be used, such as watering, or permanently sealing the surface.

Unfortunately, in some areas such as rural roads, even these methods are not practicable or affordable. Shelter belts will help to prevent dust from roads entering residential properties.

Other activities generating dust, such as abrasive blasting or combustion processes on trade and industrial premises, are controlled by air discharge consent conditions from the Regional Council. These conditions set limits on how much dust can be emitted.

***Other Air Management titles in the Environment Topic series:***

- Agrichemical Spray Drift
- Odour
- Products of Combustion
- Regional Air Plan

**For further information:**

Please contact Regional Council Environmental Officers for information or advice on any air issues or to obtain a copy of the Regional Air Plan.

Phone 06-835 9200

Fax 06-835 3601

Toll Free 0800 108 838