# 9. Hazardous Substances and Contaminated Land

Many activities in the District involve the use, storage, transportation and disposal of hazardous substances which are critical to manufacturing, construction, primary production or in day to day domestic activities. Examples of where hazardous substances are used, stored and transported include:

- Farming, forestry, and horticultural use of pesticides and other sprays.
- Use of garden herbicides in residential areas.
- Storage of petroleum fuels and oils at service stations and re-fuelling of vehicles.
- Use of a wide range and volume of chemicals in manufacturing processes (and the wastes generated in those processes).
- Transportation of chemicals, gases, and petroleum fuels in tankers on roads and rail.

All hazardous substances need to be carefully managed at every stage of their life cycle from chemical production through distribution to use and ultimate disposal. Poor management at any stage could pose a risk of adverse effects on people and the environment.

Territorial authorities have responsibility under Section 31 of the RMA to control any actual or potential effects of the use, development or protection of land. This responsibility includes preventing or mitigating any adverse effects of the storage, use, disposal, or transportation of hazardous substances (Section 31(1)(b)(ii)) and preventing or mitigating any adverse effects of the development, subdivision, or use of contaminated land (Section 31(b)(iia)).

This function is complemented by the responsibilities of Horizons Regional Council under Section 30 of the RMA which are to also prevent or mitigate any adverse effects of the storage, use, disposal and transportation of hazardous substances, and to undertake the investigation of land for the purposes of identifying and monitoring contaminated land. The Proposed One Plan identifies that both Regional and District Plans will be used as methods to address these two responsibilities.

The Hazardous Substances and New Organisms Act 1996 (HSNO) and Hazardous Substances regulations are the principal legislation controlling the introduction, manufacture, use, storage and disposal of hazardous substances. HSNO has revoked earlier legislation to integrate the management of hazardous substances and the introduction of new organisms to New Zealand. A key feature of the RMA is that the Environmental Protection Authority (EPA) has prime responsibility for the assessment of the use and setting of controls on hazardous substances, whereas Horizons Regional Council and Horowhenua District Council have responsibilities for the management of hazardous substances as it relates to the environment and the RMA. Therefore the District Plan does not duplicate any existing controls covered effectively by the EPA or other legislation.

The National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil was developed and became operative 1 January 2012. The purpose of this NES is to ensure that land affected by contaminants in soil is appropriately identified and assessed at the time of being developed and if necessary remediated, or the contaminants contained, to make the land safe for human use. The NES provides national planning controls, applicable standards for contaminants in soil and the national approach to investigation and reporting.

## Issue 9.1 HAZARDOUS SUBSTANCES

The risks of adverse environmental and health effects associated with the storage, use, disposal, and transportation of hazardous substances.

## **ISSUE DISCUSSION**

The use, storage, transportation and disposal of hazardous substances are essential parts of everyday life and many industries. The type and quantities of hazardous substances stored and used in the District are wide ranging. They include the storage, use and retail sale of everyday commodities, such as pesticides and motor fuels, to the use of industrial quantities of glues and preservatives in timber treatment plants and manufacturing industries. If hazardous substances are not managed or controlled appropriately, spillages, leakages, accidental fires and explosions could occur. These risks associated with hazardous substances could adversely affect the health of human and natural environments, including pollution or damage to land and waterways, and compromise public health and safety.

The disposal of hazardous substances is a daily need for the community, ranging from the disposal of paint and detergents from residential sites to the residuals of agricultural chemicals from farms. Where these substances are disposed of in a controlled way, the risks to the environment and communities can be avoided or mitigated. Horizons Regional Council is responsible for discharges onto land and therefore the discharge <u>or disposal of hazardous substances into the environment</u>, including farm applications of fertiliser which is controlled through the Proposed One Plan.

Hazardous substances are transported throughout the District by road and pipeline (e.g. natural gas). These forms of transportation are well regulated by other legislation and the respective industries are generally well managed, with the risk to the environment from transportation being relatively low.

As hazardous substances are already subject to regulation under other legislation such as HSNO, the additional controls included in the District Plan are for resource management purposes. Policies and rules implemented under the District Plan are focused on facilities which use, store, transport and dispose of hazardous substances rather than on the substances themselves.

# **Objectives & Policies**

### **Objective 9.1.1 Hazardous Substances**

To ensure that adequate measures are taken to avoid or mitigate the adverse environmental effects of the use, storage, and transport and disposal of hazardous substances.

### Policy 9.1.2

Control classes of hazardous substances which have the potential to cause adverse effects on the environment, recognising that the quantities of hazardous substances requiring control will vary depending on the proximity of sensitive activities, and the susceptibility and sensitivity of the surrounding environment to adverse effects from hazardous substances.

## Policy 9.1.3

Allow appropriate quantities and classes of hazardous substances to be used and stored to provide for land use activities to avoid or mitigate adverse effects and unacceptable risks to the environment and community.

### Policy 9.1.4

Ensure hazardous substances are stored under conditions which reduce the risk of any leaks or spills contaminating land or water.

### Policy 9.1.5

Limit the use and storage, and avoid disposal, of hazardous substances near any of the following areas:

- waterbodies or wetlands;
- areas of outstanding natural features and landscapes;
- significant ecological sites;
- sites of particular heritage or cultural value;
- popular recreational areas; and
- dwellings, other than a dwelling on the same site as the activity.

### Policy 9.1.6

Establish controls to ensure that facilities which involve the use, storage, <u>or</u> transport <del>or</del> <del>disposal</del> of hazardous substances are located, designed, constructed and managed to avoid, remedy or mitigate adverse effects on the environment and/or human health.

### Policy 9.1.7

Disposal of hazardous wastes is to be undertaken in an environmentally safe manner at authorised facilities to avoid the risk of hazardous substances creating adverse effects on the environment and human health.

### **Policy 9.1.8**

Appropriate facilities and systems are to be provided <u>that seek</u> to avoid accidental events involving hazardous substances (such as spills and gas escapes) that have the potential to create unacceptable risks to the environment and human health.

### **Policy 9.1.9**

Transportation of hazardous substances, including wastes, should be undertaken in a safe manner, by modes and transport routes which prevent or minimise the risk of adverse effects on residents, on the natural and physical environment, and on other transport users.

#### **Explanation and Principal Reasons**

Horowhenua District Council has a responsibility under the RMA to manage land use activities that involve the use, storage, transportation or disposal of hazardous substances, so that the actual and potential effects on the environment can be avoided, mitigated or remedied. The approach taken enables the use of hazardous substances, depending on the class of substances and the quantities considered appropriate in the different environments across the District. Some areas and activities are more sensitive to the use of hazardous substances, compared to other areas and facilities that are purpose built or where users are certified to transport, store and dispose of larger quantity or higher risk substances.

Therefore, specific controls relating to the use and storage of hazardous substances directly relate to the nature of environmental effects and the level of risk. In making these provisions, Council recognises that the use, transport, discharge and disposal of hazardous substances are controlled by other statutory authorities through legislation and associated controls and Standards including the HSNO Act 1996 and NZS 8409:2004.

Site design, layout and operational/management procedures can greatly reduce the risks to the environment from activities storing or using hazardous substances.

Council recognises that the safe disposal of many types of hazardous substances is difficult. Accordingly, Council will promote safer disposal practices through public education and advice.

In cases of accidental spillage, contingency measures would be required by both major users of hazardous substances, and Council, so as to avoid, remedy or mitigate adverse effects to people or the environment. Council does not consider that any consent is necessary specifically for transportation of hazardous substances at the District level. At present there are controls under the Transport Act, the Explosives Act, and New Zealand Standards.

## Methods for Issue 9.1 & Objective 9.1.1

#### **District Plan**

- Rules and conditions to control the use, storage, transportation and disposal of hazardous substances in the District.
- Activities which do not comply with standards will be considered subject to resource consent requiring an assessment of effects and risk.

#### **Other Methods**

- Ensure that activities involving the use or storage of hazardous substances make adequate provision for response to, containment of, and clean up of, any emergency or accident or inadvertent release of hazardous substances into the environment.
- Regularly monitor the environmental health and safety, and the effectiveness of hazardous substances management at the known sites and facilities of hazardous substances.
- Promote the use of good practice guidelines, industry standards, Codes of Practice, and cleaner production methods in the use, storage, and transportation of hazardous substances.

- Hazardous Substances and New Organisms Act sets out technical standards for the use, storage, inspection, identification and regulation of hazardous substances.
- Industry Codes of Practice, New Zealand Standards and Guidelines will be used to avoid, remedy or mitigate environmental effects and in managing risks associated with hazardous facilities. Industry Codes will be utilised in some circumstances to provide the basis for controls on the use of hazardous substances.

## Issue 9.2 CONTAMINATED LAND

The use and development of potentially contaminated land can lead to adverse effects on the environment and human health, when the necessary remediation <u>or management</u> <u>measures</u> works have not been undertaken prior to use.

### **ISSUE DISCUSSION**

Hazardous substances can contaminate land when discharges occur and are not cleaned up. Contaminated land is an area where contaminants occur at greater levels than naturally occurring background levels. Within the Horowhenua there are a number of known sites containing contaminated land where testing has confirmed the presence of hazardous substances. An owner wishing to conduct activities on contaminated land needs to ensure the contaminant is not exposed during activities or that it is appropriately managed, usually through remediation or removal from the land.

In circumstances where more sensitive land uses are proposed on land that has either not been fully remediated (but the level of contamination was acceptable for the previous land use) or is potentially contaminated land, it is important to ensure that the land is remediated to a satisfactory degree to avoid or reduce risks to human health. Alternatively, contaminated land needs to be managed so that it does not pose an unacceptable risk to current or proposed land uses. The on-going management of contaminants on land needs to be adequate to protect the reasonably foreseeable needs of present and future land users. Poorly implemented risk management plans can result in unforeseen and unexpected adverse effects and poorly managed information can result in uninformed land use decisions, both of which can expose people and the environment to unacceptable risks.

Horizons Regional Council has accepted principal responsibility for identifying and investigating contaminated sites within the region. Territorial authorities are responsible for controlling the effects of the use and development of land for the purpose of preventing or mitigating any adverse effects of the subdivision, use and development of contaminated land. When land has been contaminated by historical activities, it is not controlled by regional councils because hazardous substances are no longer being discharged to the environment. In this situation, processes need to be put in place so that future owners and users of the land are not adversely affected. The best time to do this is when there is an application to subdivide the land, or to change the land use. The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health directs the requirement for consent or otherwise for activities on contaminated or potentially contaminated land in this regard.

## **Objectives & Policies**

### **Objective 9.2.1** Contaminated Land

To avoid, or mitigate the risk of adverse effects from the <u>subdivision</u>, use, redevelopment or remediation of contaminated and potentially contaminated land on human health and the environment.

### Policy 9.2.2

Identifying those sites that may be subject to potential contamination as a result of historical land uses.

### **Policy 9.2.3**

Require development sites that have a history of land use that could have resulted in contamination of the soil to undertake a preliminary site investigation to confirm whether further investigation, remediation or management is required, to ensure that the land is suitable for increased the intended exposure to humans and the environment.

### **Policy 9.2.4**

Ensure that all remediation, use, subdivision and redevelopment of land affected by soil contamination prevents or mitigates adverse effects and risk on human health and the environment.

### Policy 9.2.5

Require management measures for contaminated land, which may include that provides for remediation, or containment, or disposal of contaminated soil, to ensure that any so the level of contamination is appropriate for the proposed any likely future use of the land.

### **Policy 9.2.6**

Ensure that exposure from the on-going use of land affected by soil contaminants is managed in a way that prevents or mitigates any adverse effects on human health and the environment.

### **Explanation and Principal Reasons**

Some land within the Horowhenua is contaminated from previous land use. These contaminated areas can pose a threat to the environment and to the health of people. Depending on the nature of the contaminant, some activities could be vulnerable to the effects of the contaminants and therefore be unsuited to the contaminated land (for example, residential use). Activities that require substantial earthworks or regular soil disturbance may also be unsuitable as they may inadvertently expose the contaminant. Alternatively, where new activities locate to an area of contaminated land and the contaminant is not disturbed, there may be no adverse effect to the activity or the environment.

The District Plan applies measures that ensure safe and effective remediation and redevelopment of sites that are identified as contaminated or potentially contaminated as a result of historical land use activities. To assist in implementing these measures, both

Horowhenua District Council and Horizons Regional Council maintain a data base that records confirmed contaminated land as well as land that is potentially contaminated due to its association with a hazardous activity or industry as defined by the HAIL (Hazardous Activities and Industries List).

The requirements for managing contaminated and potentially contaminated land are detailed in the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. The National Environmental Standard directs the requirement for consent or otherwise for activities on contaminated or potentially contaminated land, and standardised methods for the establishment of numerical standards for contaminants in soils. These requirements include a national set of soil contaminant standards for 12 priority contaminants, and best practice guidelines for investing and reporting on contaminated or potentially contaminated land. An inability to meet the requirements of this standard, or the undertaking of particular activities in certain locations, will result in the need for a resource consent.

# Methods for Issue 9.2 & Objective 9.2.1

### Information

- Horowhenua District Council in co-operation with Horizons Regional Council, will maintain a database of confirmed contaminated sites and potentially contaminated land based on the Hazardous Activities and Industries List (HAIL).
- Land Information Memoranda (LIM) and Property Information Memoranda (PIM) to inform landowners of confirmed contamination or potentially contaminated land.

### **District Plan**

• Rely on National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health for assessing and managing the adverse effects of contaminated and potentially contaminated land.

Maintaining records of contaminated and potentially contaminated land enables landowners to be informed about potential risks. Applying the national planning rules to assessing and managing subdivision, use and development of confirmed contaminated land and potentially contaminated land provides a consistent approach to managing the risks to human health and the environment. If contamination is present, the resource consent process would ensure the risks of any contamination are effectively remediated.

# ANTICIPATED ENVIRONMENTAL RESULTS

The environmental results for hazardous substances and contaminated land which are anticipated to result from the combined implementation of the above policies and methods are as follows:

- 9(a) Protection of the natural and physical resources from adverse environmental effects associated with the use, storage, transportation and disposal of hazardous substances.
- 9(b) Protection of human health from potential adverse effects associated with the use, storage, transportation and disposal of hazardous substances.
- 9(c) Appropriate site design, management and operational practices of all facilities

involved with the use, storage, transportation and disposal of hazardous substances.

- 9(d) Hazardous substances are collected, transported and disposed of safely.
- 9(e) Identification and remediation of contaminated sites will have decreased the risk to human health and the environment.