

## 6.6 Hazardous Substances

### Introduction and Issues

The use, storage and manufacture of potentially hazardous substances is an integral part of the normal activities of the city. These substances whether singularly or in combination have the potential to affect the health and safety of the community, and the sustainability and well-being of the local natural and physical environment.

Hazardous substance use, both in terms of quantity and range of substances, varies from the purely domestic level, research and laboratory use up to industrial scale uses. Risks to public safety, amenity and the environment therefore vary widely from use to use. As a consequence of this, the risk that the public perceive hazardous substances pose to the environment or to public health and safety may not correspond with expert evidence available as to the scale of that risk in relation to particular activities/uses of hazardous substances. Conflict can arise in such circumstances over the appropriate level of control to be exercised over such activities/uses.

Council has responsibility under the RMA to control any actual or potential effects of the use, development or protection of land including the prevention and mitigation of any adverse effects of the storage, use, disposal or transportation of hazardous substances. In addition to this, hazardous substances are generally controlled by specific legislation. The purpose of this is often to regulate the use of any substance; the District Plan in contrast manages such substances in the context of the environment in which they occur.

The principal issues regarding hazardous substances in Hamilton are:

- **Hazardous substance use and storage involves a potential risk to public safety and can have adverse effects on amenity and the environment.** The potential threats to safety and amenity generally caused by hazardous substances are fire, explosion, liquid or airborne toxicity, or the caustic nature of the substance. In addition hazardous substances potential hazard can arise not only from the substance itself but from the quantity of the substance in any one place, proximity to other hazardous substances, air and water and the way the substance is handled, transported or stored.
- **Transportation of hazardous substances adds to the level of risk posed by the substances.** Additional risks are associated with transportation of hazardous substances. Where these pass through heavily populated areas potential adverse effects in the event of an incident are increased.
- **Contaminated sites can pose both an immediate and long-term threat to human health and the environment.** Land contamination in Hamilton has occurred over many years and is due to a variety of causes including industrial uses and commercial uses involving hazardous substances. The presence of some contaminants can affect human health, plants, animals and ecosystems. Certain contaminants may also have a detrimental impact on the integrity of buildings and service structures and place constraints on current and future land uses.

There is the potential for further contamination of adjoining sites; groundwater and receiving waters if existing contaminated sites are disturbed.

## Objective 6.6.1 Hazardous Substances

To allow for the continued use of hazardous substances while ensuring the adverse environmental effects of the use, storage, disposal or transportation of hazardous substances are avoided, remedied or mitigated.

### Policies

- a) Control activities involving the use or storage of single or multiple hazardous substances in a manner which reflects the level of risk posed by the substances to the community and the environment.
- b) Control the establishment of facilities and activities which use or store hazardous substances in a manner which reflects the level of risk they pose relative to the sensitivity of the surrounding population and environment.
- c) Control the design, construction and operation of facilities employing significant quantities or types of hazardous substances in order to minimise the risk of adverse effects on the environment and on people's health and safety.
- d) Ensure that appropriate facilities are in place to avoid the pollution of soil, groundwater, watercourses and air in the event of accidents (such as spills, gas escapes, etc) involving hazardous substances.
- e) Streamline the management of hazardous substances for activities where the scope, scale and management of the hazardous material is clearly known and managed by appropriate industry, or legislative standards.
- f) Allow for the integrated management of sites which may utilise a wide range of hazardous substances over a series of dispersed localities or sub-facilities (eg. Waikato Hospital, University of Waikato, Waikato Polytechnic).
- g) Allow the continued use and storage of hazardous substances at a domestic scale and in circumstances where the level of activity and risk is minimal.
- h) Restrict activities involving nuclear materials and facilities to those of small scale, where the adverse effects can be shown to be minimised or avoided.
- i) Encourage transportation of hazardous substances by modes and transport routes which minimise the risk of adverse effects on residents, on the natural and physical environment, and on other transport users.

- j) Encourage the use and redevelopment of contaminated and suspected contaminated sites in a manner that avoids, remedies or mitigates potential adverse environmental effects, including effects on human health.

## Reasons

The storage and use of hazardous substances is spread throughout the community. Any management regime must endeavour to match the level of control to the magnitude, and likelihood of any risk and the consequences of any unintended release. The plan focuses on protecting residential areas and environmentally sensitive areas in particular.

The plan recognises that there are domestic concentrations of chemicals which are impractical to control, circumstances such as the University where a wide range of hazardous substances are maintained over a range of sites that warrant an integrated control regime, and particular activities such as service stations where the nature of the risk is well defined, documented, and effectively managed by the industry itself. Different management regimes can be clearly justified for these circumstances, and are to be encouraged so that the District Plan can continue to provide for and accommodate the most effective available method of control for these substances.

Under the RMA both regional councils and territorial authorities have a role to play in the management of hazardous substances, but no explicit roles in the management of contaminated sites. Council does however recognise the potential adverse effects posed by contaminated sites and has resolved to address the matter in co-ordination with the regional council through its own Contaminated Sites Strategy outside of the District Plan provisions.

## Methods

The Hazardous Substances objective and policies will be implemented through the following methods:

### District Plan

- **Hazardous Facilities Rules** - which ensure that the level of control of hazardous substances and facilities using them is commensurate with the scale of the likely environmental effects.

### Other Methods

- **Hazardous Substances and New Organisms Act** - sets out technical standards for the use, storage, inspection, identification and regulation of hazardous substances.
- **Transport Act 1962** - imposes extra controls on the transportation of hazardous substances.
- **Hamilton City Council Contaminated Sites Strategy June 1998** - provides for the establishment of a database of sites of past land uses identified by the Australian, New Zealand Environment and Conservation Council Guidelines as being likely to have led to contamination and/or sites where contamination has been confirmed. The strategy also details Council's approach to contaminated sites management and addresses the investigation, assessment, management and prevention of contaminated land.
- **Land Information and Project Information Memoranda** - will identify where sites are 'potentially contaminated' to encourage their investigation and, where necessary, remediation.

- **Education** - will be used to encourage resource users to take responsibility for their own health and safety, and for management of the effects of their activities on the public and the environment.
- **Codes of Practice and Guidelines** - will be used 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.
- **Liaison with parties involved with hazardous substance use** - such as the regional council and adjoining territorial authorities, Ministry of Health, Ministry for the Environment, the Environmental Risk Management Authority (ERMA), the New Zealand Police and owner/operators who use hazardous substances, will allow more effective risk management coordination.

## Anticipated Environmental Results

The following environmental results are anticipated:

- Activities involving hazardous substances will take place free from significant risk to the community and the environment.
- Existing contaminated sites in the city will be identified and progressively assessed and managed.
- Improved soil, water and air quality in the vicinity of confirmed contaminated sites.