11.1 ISSUES

- **The Management of Hazardous Substances**

The Resource Management Act 1991 specifically requires, under section 31 which deals with the functions of district councils, the following:

> "*(b) the control of any actual or potential adverse effects of the use, development or protection of land including for… the prevention or mitigation of any adverse effects of the storage, use, disposal or transportation of hazardous substances.*"

Under the Act both the Wellington Regional Council and Carterton District Council are responsible for dealing with hazardous substances. The Wellington Regional Council Policy Statement states that the specific responsibility for territorial authorities is to implement rules which control the use of land leading to the prevention or mitigation of the adverse effects of hazardous substances. The District Council will use rules along with other methods in dealing with this issue.

The District Plan, in preventing or mitigating the effects of hazardous substances, will consider each stage in the life cycle of hazardous substances from chemical production, through distribution, to use and ultimate disposal.

The management of hazardous substances should be dealt with in a way that will not increase the risk of damage to the environment, for example; management of the storage and use of hazardous substances in areas subject to flooding or over fault lines is critical otherwise there is an increased risk to public health and the natural environment.

Hazardous substances can be used in differing quantities and concentrations depending upon the nature of the activity. The range of uses can vary from domestic use and storage of garden chemicals and petrol; agro-chemicals; storage of petroleum products by service stations; and chemicals used in a manufacturing process. Hazardous substances then have a number of applications and provide positive benefits to the community.

While there may be positive benefits, the properties of hazardous substances can create adverse effects. The properties include: explosive, flammable, may oxidise, be corrosive, toxic to a variety of ecosystems or radioactive.

The District Plan then needs to account for these properties and manage the nature of the hazard and the risk arising from the hazard. The nature of the hazard is the type of effect that would occur if the substance was released into the environment. This is determined by the properties of the substance. The risk is the likelihood of an event occurring.

Where hazardous substances are not dealt with responsibly a number of problems can occur including: unsafe disposal techniques resulting in contaminated bodies of surface water (for example, the disposal of agro-chemicals); or contaminated sites. Contaminated sites pose a risk to the community in terms of human health and the environment.

- **The management of solid waste**

The responsibilities for waste management are dealt with at the central, regional and territorial levels and involve several statutes. An integrated approach to waste management is needed to avoid, remedy and mitigate the adverse effects.

The Wellington Regional Policy Statement acknowledges that the Regional Council has the primary responsibility for developing an integrated approach to waste management. To this end the Regional Council will:

- Prepare a Regional Framework for Waste Management
- Establish and service a regional waste liaison group made up of representatives of territorial authorities and other agencies with waste management responsibilities in the Region
- Promote and co-ordinate the adoption of the Waste Analysis Protocol to monitor and gather information on the waste stream

Carterton District Council acknowledges that a co-ordinated effort is required to achieve an integrated approach to waste management and recognise the waste management hierarchy identified in the Wellington Regional Policy Statement as the basis of good waste management. This involves:

- Reducing the amount of waste generated
- Reusing waste resources
- Recycling
- Recovering resources from waste (eg. energy)
- Disposing of residual waste safely

The management of solid waste requires consideration of both quantity of waste produced and the adverse effects of discharging solid wastes to land.

The issues relating to the safe, sanitary disposal of waste are primarily concerned with public health and the environment and include stormwater, leachate, gas production (methane, carbon dioxide), litter and uncontrolled dumping at illegal sites, vermin, birds, insects and weeds, fires and smell.

Council operates a landfill at Dalefield Road. This landfill is managed in an environmentally sensitive manner generally in accordance with the Ministry for the Environment guidelines for landfill management. Management strategies have been adopted in consultation with Regional Council staff. The relevant Regional resource consents for the Dalefield Road landfill were obtained in 1996 and are valid until 2016.

The Carterton District Landfill Management Plan (September 1994) identified a 20 to 25 year life remaining at the present landfill site in Dalefield Road based on the existing usage rate of 5500m^3 annually. With regard to the development of future facilities Council is participating in an investigation into a sub-regional waste disposal site with Masterton and South Wairarapa District Council. Council also intends to construct and commission a new transfer station facility during 1997/1998.

There is a charge for using the landfill to provide an incentive for people to manage their waste at the source, either through reduction, recycling or reuse. The principle of charging is to ensure that everyone is accountable for meeting the costs of disposal for the waste they generate. At the landfill in Dalefield Road there are recycling schemes for paper, steel and composting plus partial recycling for other products (Council is looking to introduce plastics recycling). At the domestic level, reduction at source may simply mean encouraging composting of garden refuse, while at the industrial level it may involve identifying how to use the product more effectively or how to utilise the waste stream being produced.

- **Use of land for treatment and discharge of sewage**

Development within the urban area of Carterton is on the basis of a reticulated sewage system. Carterton District Council operates a sewage treatment plant on Dalefield Road in compliance with regional resource consents. These consents lapsed in 1995 and the process to obtain further consents form the Regional Council is now underway. The discharge of treated and untreated

sewage in the rural environment is subject to Regional Council rules with respect to discharges to land and water.

11.2 OBJECTIVE

11.2.1 Mitigate and prevent the adverse effects that may occur as a result of the use, storage, disposal and transportation of hazardous substances.

11.2.2 Minimise the quantity of solid waste produced in the District whilst avoiding, remedying or mitigating the adverse effects of discharging solid contaminants to land.

11.3 POLICIES

11.3.1 Manage the use, storage, disposal and transportation of hazardous substances is carried out in accordance with minimum standards.

Explanation:

The policy acknowledges that hazardous substances are important for many activities. It is necessary however, to ensure that the practices involved in use, storage, disposal and transportation meet minimum standards. Minimum standards are found in a number of pieces of legislation which are currently under review. The standards in the plan may need to be reviewed once the Hazardous Substances and New Organisms Legislation is enacted.

All stages in the life cycle of hazardous substances need to be dealt with if adverse effects are to be avoided.

In addition the disposal of hazardous waste needs to be dealt with. The Council will assist the Wellington Regional Council to ensure waste disposal is dealt with and the Plan will consider this as an issue when an activity is established.

11.3.2 Mitigate and prevent damage to the environment and human health from contaminated sites in the District.

Explanation:

The potential adverse effects of contaminated sites on human health and the environment need to be taken into account. However, the means of dealing with contaminated sites need to be assessed on a case by case basis. In particular the practicality of site clean up needs to be assessed in relation to the end use of the site.

11.3.3 To promote the following hierarchy of principals for the acceptance, handling and disposal of solid waste:

1. **Waste reduction**
2. **Re-use (at source)**
3. **Recycling and resource recovery**
4. **Safe handling, storage, treatment, and disposal**

Explanation

The implementation of this hierarchy is consistent with the Wellington Regional Policy Statement and will contribute to an integrated strategy in the Carterton district. The application of the hierarchy can reduce the quantity of solid waste discharged to land thereby extending the life of the District's landfills. It is acknowledged that there are costs and benefits associated with each level of the hierarchy and the best practicable option should be favoured when a reduction in waste is possible

11.3.4 Manage facilities for the disposal of solid waste to avoid, remedy or mitigate adverse effects on the environment.

Explanation

This policy acknowledges that solid waste disposal facilities have adverse effects on the environment which need to be managed. The Dalefield Road Landfill is being managed in an environmentally sensitive manner generally in accordance with the Ministry for the Environment guidelines for landfill management and non-compliance with resource consents from the Wellington Regional Council. Management strategies have been adopted in consultation with Regional Council staff.

11.4 METHODS

11.4.1 District Plan

(a) To require any activity involving the use or storage of hazardous substances to meet minimum standards in the Plan. Activities which do not comply with the standards will be considered subject to a resource consent. The information requirements of the Guide to the Plan Section include the information required for hazardous substances.

(b) To require the collection, treatment and disposal of any hazardous waste is appropriately managed and in particular to ensure the Wellington Regional Council is consulted.

(c) Monitor the appropriateness of controls and the effectiveness of hazardous substances management at sites known to use hazardous substances.

(d) To require any activity on a contaminated site to go through the resource consent process to assess the impact on activities.

Reasons

In setting any minimum standards the Plan recognises that hazardous substances are a necessary component of many day to day operations and in many situations there is no problem with their use and storage. Minimum standards are designed to ensure the environment is protected. If a resource consent application is required the Council will seek additional information to assist in determining the effects any activity will create.

Proper disposal of hazardous waste is important. The disposal of hazardous waste is a matter which falls under the jurisdiction of the Wellington Regional Council. However, the Plan ensures waste disposal is addressed as part of an application to ensure it is not lost sight of when establishing activities. Inappropriate disposal can result in the creation of a contaminated site.

Compliance monitoring ensures hazardous substances are being used, stored and transported in an appropriate manner.

Where known contaminated sites are to be used, the sensitivity of the proposed activity will be assessed on a case by case basis.

11.4.2 Building Controls

(a) The Council will enforce the provisions of the Building Act in relation to fire protection and other legislative requirements for dealing with hazardous substances.

Reasons

The Council will use all available means to deal with hazardous substances including the provisions of the Building Act and associated codes for fire standards for buildings; the Dangerous Goods and Toxic Substances Legislation; and any Hazardous Substances and New Organism legislation.

11.4.3 Other Mechanisms

(a) Promote the use of guidelines and codes of practice developed by other agencies, including the use of cleaner production methods.

(b) Liase with the Wellington Regional Council to deal with the management of waste hazardous substances including contaminated sites.

(c) The Council will co-operate with other agencies concerned with the transportation of hazardous substances, for example, Police, Fire Service and the Land Transport Safety Authority.

(d) A charge will continue to be levied for the disposal of waste at Council owned landfills.

(e) Waste reduction education may be undertaken, in conjunction with the Wellington Regional Council, to provide information to the community relating to opportunities for waste minimisation and recycling.

(f) Council advocates and supports community based recycling and/or composting schemes.

Reasons

In order to effectively deal with the management of hazardous substances all means available need to be used. The Plan promotes the use of guidelines and codes of practice developed by other agencies. The Council recognise the user is the person able to reduce adverse effects. In order to increase the awareness of likely adverse effects amongst users the Council will promote information made available by other agencies particularly on cleaner production practices. Contact will be maintained with the Wellington Regional Council to ensure the issue of the management of the disposal of hazardous substances is dealt with most effectively.

Any activity being undertaken on a contaminated site will be required to go through a resource consent process to ensure the adverse effects on the environment are prevented or mitigated. In addition liaison with the Regional Council will assist in obtaining information on known contaminated sites.

The Council will rely on other agencies who are more directly involved in dealing with the transportation of goods and emergency response planning as the Council recognise they cannot act in isolation in dealing with the transportation of hazardous substances.

Effective waste reduction requires a co-operative approach between local authorities, industry and the community. A promotional and educational approach to solid waste minimisation has therefore been adopted in preference to a regulatory approach. This is consistent with the approach taken by the Wellington Regional Council.

With regard to the control of adverse effects of discharges, the Wellington Regional Council has adopted a primarily regulatory approach. It is unnecessary for Carterton District Council to duplicate these regulations. Whenever solid waste is disposed of consents from the Wellington Regional Council may be necessary to ensure that it is disposed of in an environmentally acceptable manner.

11.5 ANTICIPATED ENVIRONMENTAL RESULTS

The implementation of the policies and methods is expected to result in the following outcomes:

(a) Mitigation or prevention of the adverse effects of the storage, use, disposal and transportation of hazardous substances on the environment.

(b) Increased public awareness of the risks associated with hazardous substances.

(c) Increased public awareness leading to a reduced waste stream.

(d) The mitigation or prevention of adverse effects associated with facilities for the disposal of solid waste.

(e) An extension of the life of landfills in the district.

11.6 DISTRICT RULES

11.6.1 PERMITTED ACTIVITIES

(a) The use and storage of hazardous substances in domestic scale quantities, or fuel in motor vehicles, aircraft, boats and small engines.

(b) Within the Urban Industrial, Rural Industrial, Urban Commercial and Rural Environment Zones the use or storage of hazardous substances where the Threshold Hazard Factor does not exceed Medium (refer Appendices 11A and 11B) or is undertaken in association with any temporary military training activity.

(c) Within the Urban Residential Zone the use or storage of hazardous substances where the threshold hazard factor does not exceed low. (Refer Appendices 11A and 11B).

11.6.2 Conditions for Permitted Activities:

Every activity involving the use and storage of hazardous substances shall comply with the following conditions:

11.6.2.1 Site Design:

(a) Any part of the site where hazardous substances are stored, used, manufactured, mixed, packaged, loaded or unloaded or otherwise handled shall be designed, constructed and managed in a manner that prevents:

- any adverse effects occurring both on and off the site;
- the entry or discharge of the hazardous substance into the stormwater drainage system or sewerage system in the event of a spill or other unintentional release;
- the contamination of any land and/or water (including groundwater and potable water supplies) in the event of a spill, or other unintentional release;

(b) The site shall be designed, constructed and managed in a manner that any stormwater originating on or collected on the site that has become contaminated:

- does not contaminate any land and/or water (including groundwater and potable water supplies) by acting as a transport medium for hazardous substances;
- does not enter or discharge into the stormwater drainage system or sewerage system.

Adherence to the following is deemed to comply with this condition. The parts of the site described above shall be serviced by a spill containment system that is:

(a) constructed from impervious materials resistant to the hazardous substances used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site;

(b) able to contain the maximum volume of the largest tank used, or where drums or other containers are used, able to contain half the maximum volume of substances stored;

(c) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater that has become contaminated, from

entering the stormwater drainage system;

(d) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater that has become contaminated, from discharging into or onto land and/or water (including groundwater or potable water supplies); and

(e) does not contain incompatible products within the same bunds.

11.6.2.2 Stormwater Drainage:

All stormwater grates on the site shall be clearly labelled "Stormwater Only".

11.6.2.3 Washdown Areas:

Any part of the site where vehicles, equipment or containers that are or may have become contaminated with hazardous substances are washed shall be designed, constructed and managed to prevent the effluent from the washdown area from:

- entry or discharge into the stormwater drainage system or sewerage system;
- discharge into or onto land and/or water (including groundwater and potable water supplies) except that farming activities are permitted to discharge to land subject to the Wellington Regional Council rules.

11.6.2.4 Underground Storage Tanks:

Underground tanks for the storage of petroleum products shall be designed, constructed and managed to prevent leakage and spills.

Adherence to the Code of Practice for "Design, Installation and Operation of Underground Petroleum Storage Systems" (Department of Labour - Occupational Safety and Health 1992) and Supplement Number 1 "Management of Underground Petroleum Storage Systems" (Department of Labour - Occupational Safety and Health 1995).

11.6.2.5 Waste Management:

(a) Any waste containing hazardous substances shall in addition to the

conditions above be managed to prevent:

- the waste entering or discharging into the stormwater drainage system or sewerage system;
- the waste discharging into or onto land and/or water (including groundwater and potable water supplies).

(b) The storage of any waste containing hazardous substances shall be in a manner that prevents:

- the exposure to ignition sources;
- the corrosion or other alteration of the containers used for the storage of waste;
- the unintentional release of the waste.

(c) Any waste containing hazardous substances shall be disposed of to sites approved for that use by the Wellington Regional Council.

(d) A record shall be kept by the site owner/occupier at all times of the types and quantities of hazardous wastes generated and the methods of disposal.

Explanation:

The plan provisions are designed to ensure the adverse effects of hazardous substances are avoided, remedied or mitigated by imposing conditions which need to be complied with. The potential risk posed by the hazard can then be prevented or mitigated.

11.6.3 DISCRETIONARY ACTIVITIES

(a) Any activity using or storing hazardous substances which is not able to comply with the conditions for permitted activities.

(b) Any use or storage of hazardous substances within any identified floodplain area or within 20 metres of any mapped fault line. (Refer planning maps and Appendix 10A).

(c) Any redevelopment or change of use of a contaminated site.

Note**:** The Wellington Regional Council Policy Statement addresses hazardous

substances and there are policies and rules in various regional plans in relation to use and disposal of agro-chemicals**.**

11.6.4 Council may have regard to the following matters:

(a) The probability and possible magnitude of any risk posed by hazardous substance(s);

(b) the location where the hazardous substance(s) are to be used or stored on site, in particular, distances from boundaries, other structures and people living on site or on adjacent sites;

(c) the sensitivity of the surrounding environment and bodies of surface water;

(d) proposed transportation routes to and from the site;

(e) the proposed method of containment and the systems for preventing escape;

(f) proposed emergency and evacuation procedures;

(g) any application must demonstrate that the storage of hazardous substance(s) will not, or is not likely to increase the risk in any area subject to a natural hazard event through outlining the proposed mitigation and management measures;

(h) effects on the safety of operation of the adjoining road network and in particular the avoidance of the use of local roads in residential areas;

(i) advice provided to Council, in writing, of the nature and volume of any substance expected to be found on the site;

(j) consultation undertaken with Wellington Regional Council and other affected parties.

Explanation:

An assessment of the effects of and risk posed by hazardous substance(s) needs to be made at the time an application for resource consent is made. Particular consideration needs to be given to the increased risk in areas subject to natural hazard events.

Protection of the surrounding environment from any adverse effects from hazardous substances.

11.6.4.1 Any redevelopment or change of use of a contaminated site.

Council may have regard to the following matters:

(a) The nature of contamination;

(b) the proposed approach to decontaminating a site; and

(c) the management or mitigation measures to avoid any adverse effects on public health and safety and the environment.

Explanation:

At this stage work is being undertaken through the Wellington Regional Council to identify any contaminated sites. It is appropriate that where a contaminated site is identified that off-site risks are determined, any likely adverse effects on future activities are avoided and the importance of site clean up is acknowledged. The Council will liase with the Wellington Regional Council to determine those sites which are contaminated.

APPENDIX 11A

Low Threshold Hazard Factor describes a situation where the overall risk of hazard is estimated to be low. This means situations where:

- the hazardous substance(s) have only low to medium hazard levels (based on the classification system adopted in "UN Recommendations on the Transport of Dangerous Goods: 8th Edition" 1993 and;

- the quantities involved do not exceed that associated with retail business providing goods to principally domestic customers and;

- the substances are not stored or handled under conditions which enhance their hazardous properties.

Medium Threshold Hazard Factor describes a situation where there is an intermediate level of risk to public health and the environment. This means situations where:

- the hazardous substance(s) may have hazard levels up to the high threshold; but

- the quantities involved are relatively small commercial-scale quantities (less than 1000 litres of flammable liquids or 500 litres of corrosive liquids held in secure storage); or

- the substances are stored or handled in association with any temporary military training activity.

Note: If substances of high hazard level are stored or used within 50 metres of a potable water source, important natural features or areas, residential areas or commercial activities the quantities that would qualify as having "medium" hazard would be significantly less.

High Threshold Hazard Factor describes a situation where there is a high level of risk to public health and the environment. This means situations where:

- the hazardous substance(s) may have extreme hazard levels; or

- the quantities involved are large industrial scale amounts; or

- large quantities of hazardous substances are used in a manner that increases the hazardous properties of the substance(s); or

- substances with a high hazard level stored or used within 50 metres of a potable water source, important natural features or areas, residential areas or commercial activities.

APPENDIX 11B

Examples of the Facilities Covered by the Three Threshold Hazard Factors are given in the Following Table:

Low Threshold Hazard Factor	Medium Threshold Hazard Factor	High Threshold Hazard Factor
Domestic quantities and uses of hazardous substances, garden pesticides and herbicides and other substances. Retail outlets selling domestic scale quantities of hazardous substances including supermarkets, hardware stores, pharmacies, garden centres.	Commercial scale spray-painting operations. Dry Cleaners. Engineering workshops. Motor vehicle repair workshops and garages. Printers. Farm scale use of agricultural chemicals and fertilisers used in primary production activities. The storage and retail sale of agricultural chemicals and fuels direct to primary production users (including stock and station agent's premises.) Service Stations and the Retail sale of LPG The storage and use of hazardous substances in association with any temporary military training activity.	Galvanising plants. Electroplating and metal treatment activities. Chemical warehouses (including bulk storage areas for agro-chemicals and fertilisers. Explosives magazines. Chemical manufacturing processes (including industries manufacturing, storing or processing agro-chemicals fertilisers or paints.) Tanneries. Timber treatment plants. Freezing works and rendering plants. Wastewater treatment plants. Milk treatment plants. Fumigation processes or activities. Drum re-conditioners.

		Asphalt/bitumen manufacture or storage. Bulk fuel or bulk L.P.G storage. Metal smelting and refining (including battery refining or recycling). Fibreglass manufacture. Polymer foam manufacture.