

SECTION 12 - HAZARDOUS SUBSTANCES

INTRODUCTION

Hazardous substances for the purposes this Plan are any substances which may impair human, plant or animal health or may adversely affect the health or safety of any person or the environment. Well known substances that are hazardous to people or the environment include petrol or LPG, pesticides, herbicides, explosives, acids or radioactive substances.

ISSUES

The following is the resource management issue relevant to hazardous substances in the Waimate District. The objectives and policies which address this issue are then referred to. Finally the means of implementing these objectives and policies are listed and explained.

Issue - Safe Use and Effect of Hazardous Substances on the Environment

Description

The Council is now required under the Resource Management Act 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.

There are two issues arising from the use of hazardous substances in the District. The first issue is concerning the safe day to day use of hazardous substances and the second issue is the possible effects hazardous substances have on the environment. The District Plan is more specifically concerned with the adverse effects of hazardous substances on the environment rather than the safety issues associated with the correct packaging, handling, use and disposal of hazardous substances. However, the two issues do overlap and the Council believes its policies should promote a greater awareness of the dangers of hazardous substances being used incorrectly.

The issues of safety are addressed by central government under legislation called the Hazardous Substances and New Organisms Act

1996. District Councils also have responsibilities under this legislation.

Waimate District is fortunate that many classes of hazardous substances are not used extensively in the District. Nevertheless, the Council would like to ensure that the manufacture, storage, use, transportation, and disposal of hazardous substances in the District is carried out in an appropriate manner and provisions reflect this accordingly. In built up residential areas the amounts of hazardous substances that can be used, disposed or stored is restricted compared to other zones of the district.

OBJECTIVES AND POLICIES

Objective - Hazardous Substances

Avoid, remedy or mitigate adverse effects from the use, storage, transportation, manufacture, and disposal of hazardous substances.

Policies

- 1 To control the use, storage, manufacture and disposal of hazardous substances so as to minimise adverse environmental effects due to accidental spillages or poor management practices.
- 2 To promote the efficient management of the use, storage, transportation, manufacture, and disposal of hazardous substances through a co-ordinated approach between agencies responsible for the management of hazardous substances.
- 3 To ensure that adverse effects on the environment from a hazardous substances spillage are, where possible, minimised including the location of hazardous substances beyond the impact of natural hazards.
- 4 To promote public awareness about the potential adverse environmental effects that may arise through the use, storage, transportation, manufacture, and disposal of hazardous substances.
- 5 To require that storage and disposal of hazardous substances is undertaken at a place and in a manner that avoids adverse effects on the environment.
- 6 To ensure that any disposal of hazardous substances into any reticulated sewers is appropriately controlled through the use of trade waste bylaws.

- 7 To establish and operate a hazardous substances inventory for the Waimate District recording amounts and patterns of use, storage, transportation and disposal of hazardous substances in the District within 12 months of the District Plan becoming operative.
- 8 To prepare an emergency response plan, in conjunction with appropriate agencies, for a major spill of a hazardous substance that directly threatens the public and the environment.
- 9 To encourage the use of hazardous substances in accordance with appropriate Codes of Practice, and Regional/National Standards or guidelines, any relevant regulations and with the Council's bylaws.
- 10 To liaise with other agencies involved in the management of hazardous substances in order to develop effective relationships with which to prevent or mitigate the adverse effects of the use, storage, transport or disposal of these substances.
- 11 To advocate that both central government departments and the Canterbury Regional Council develop methods and facilities to dispose of hazardous substances found in the district that presently can not be disposed of.
- 12 To recognise the co-ordinating and integration role of the Canterbury Regional Council in the management of the storage, use, disposal and transportation of hazardous substances within and beyond the Canterbury region.
- 13 To increase public awareness on the potential environmental effects of hazardous practises and the guidelines and codes of practise available when dealing with hazardous substances.

Explanation and Reasons

The Council recognises that the community transports, uses and stores on many occasions very small quantities of hazardous substances, such as glue for wood work or pesticides for spraying home gardens. Accordingly, the Council has permitted the storage, use, and disposal of hazardous substances as of right subject to site standards to ensure the necessary environmental protection. The quantity permitted as of right is dependent on the nature of the particular substance and the "risk" it poses to the environment; and in addition, on how sensitive a particular environment is. For example, a built up residential area is considered to be more sensitive than an industrial area. Where quantities of specific hazardous substances exceed the limit set by the Council for various zones a land use consent will be required.

The Council also considers that any new industrial processes that are involved in the production of hazardous substances, or any operations that mix different types of hazardous substances, should only be established in appropriate locations and have adequate operational safeguards to ensure protection to the public and the environment.

The Council recognises that the safe disposal of many types of hazardous substances (waste) is difficult, or in some cases impossible. Accordingly, the Council will promote safer disposal practises through public education and advice. This will include advice as to whether hazardous substances can be recycled. A common example of hazardous substances that can be recycled are agrichemicals. Where recycling is not possible Council can advise whether the hazardous substances could be co-disposed of at appropriate landfills at Timaru. If the hazardous substances can not be disposed of in this way the Council will advise as to how such substances can be stored.

In addition, the Council will check in-coming refuse to all landfills in the District to guard against inappropriate disposal of hazardous substances at these places.

In cases of accidental spill, contingency measures would be required by both major users of hazardous substances, and the Council, so as to minimise adverse effects to people or the environment. An emergency response plan will be considered as items to be resourced by the Council.

The Council does not consider that any consent is necessary for the transportation of hazardous substances in the District. At present the Dangerous Goods Act controls the transportation of over 250 litres of any gases, flammable liquids, hydrogen peroxides or corrosives. The transportation of any explosives commercially requires approval under the Explosives Act, with routes being defined for over 1,000kg of explosives. In addition, all transportation of hazardous substances is required to follow New Zealand Standard 5433, which is administered by the Ministry of Transport. Operators who fail to comply with this standard face significant penalties.

Notwithstanding the above, the Council will have an emergency procedure plan in place for accidental spillages. In addition, operators which intend to transport hazardous substances, as part of a wider operation, will be required to consider the possible adverse effects to the environment associated with the transportation of

hazardous substances as part of any application for a resource consent.

The District Council envisages that any strategic controls on transportation routes for hazardous substances would need to be co-ordinated regionally as many routes cross the District's boundaries and transportation bases of companies carrying hazardous substances generally occur in the larger centres.

The control of hazardous substances will only be made possible with a good information base, research, and with the co-operation of people of the District. Accordingly, the provision of a hazardous substances inventory, liaison with other agencies and educative or advisory methods will be considered.

Anticipated Environmental Results

The objective and associated policies are anticipated to result in the following outcomes:

- A reduction in the potential risk to the environment from poor management practices during the use, storage, transportation, manufacture and disposal of hazardous substances.
- Minimisation of adverse effects of the use, storage, transportation, manufacture and disposal of hazardous substances through improved knowledge of these patterns.
- Periodic review of emergency response procedures to reduce the risk of hazardous substances injuring people or damaging property.

Methods of Implementation

The objective and its associated policies will be implemented through the following methods:

Non-Regulatory

- Liaison with the Canterbury Regional Council, Government Departments, and Crown Research Institutes to ensure that any research from these organisations on use, disposal, transportation and storage of hazardous substances and their effects on the environment can be used to make sound planning decisions.
- Advocate to both central government departments and the Canterbury Regional Council on developing methods and

facilities to dispose of hazardous substances found in the district that presently can not be disposed of.

- Regularly update a hazardous substances inventory for the Waimate District which will be a record of the amounts and patterns of hazardous substance use, storage, transportation and disposal in the District.
- Preparation of an emergency response plan, in conjunction with appropriate agencies, for a major spill of a hazardous substance that directly threatens the public and the environment.
- Provision of information and advice, including appropriate Codes of Practice, any Regional\National Standards or guidelines, or any relevant regulations and Council's bylaws to:
 - manufacturers;
 - importers;
 - contractors; and
 - general publicso as to promote the correct procedures for the manufacture, storage, use, disposal or transportation of hazardous substances.
- Check in-coming refuse to landfills in the District to guard against inappropriate disposal of hazardous substances in its District. This will be achieved through appropriate controls.

District Plan Rules

- Provision of performance standards to control the manufacturing, storage, use and disposal of hazardous substances in the District.
- To control the manufacturing of hazardous substances by way of resource consent.

Other Legislation

- To use enforcement provisions under the Resource Management Act 1991 where hazardous substances are manufactured, stored, used, transported or disposed of in such a way that has or is likely to be either noxious, dangerous, offensive or objectionable to such an extent that it has or is likely to have an adverse effect on the environment.
- Hazardous Substance and New Organisms Act 1996

REASONS FOR RULES

The Council has determined the types and quantities of hazardous substances that can be used as of right in the various zones of the District. If an operator uses quantities of hazardous substances greater than which have been prescribed in Table 1, a consent is required under the Resource Management Act. The following matters were considered when compiling Schedule 1 and Table 1:

- the types of hazardous substances that are commonly used or stored in the District which pose a risk to the community or the environment;
- the use of Site Standards to ensure containment of hazardous substances stored as of right in the District;
- the controls that are in place from existing legislation such as the Dangerous Goods Act and the Explosives Act. (Note that these two pieces of legislation have been repealed by the Hazardous Substances and New Organisms Act 1996)

Irrespective of Schedule 1 and Table 1, the Council considers that the manufacturing of hazardous substances will require a consent. This is because the manufacturing of hazardous substances is often a complex process which involves using large quantities of hazardous substances.

In addition to restricting the volumes of hazardous substances to be used and stored, and the introduction of appropriate site standards, the Council considers it should retain the right to use enforcement provisions where the manufacturing, use, storage, disposal of, and transportation of hazardous substances is likely to have an adverse effect on the District's environment.

HAZARDOUS SUBSTANCES RULES

1 ACTIVITIES

a Permitted Activities

The following activities shall be Permitted Activities, provided that they comply with all of the Site Standards specified below.

- i The use, storage or disposal of hazardous substances which are **not** listed in Schedule 1, or are listed in Schedule 1 but their quantities are below those specified in Table 1 for Permitted Activities in the relevant zone.
- ii The storage and/or use of hazardous substances associated with temporary military training activities.

b Controlled Activities

Notwithstanding Rule 1a, 1c and 1d in all Zones:

- i The storage and retail sale of petrol up to 100,000l in underground tanks and diesel up to 50,000l in underground tanks shall be a Controlled Activity provided that the “Code of Practice for the Design, Installation and Operation of Underground Petroleum Storage Systems” (Department of Labour, First Edition 1992) and the “Supplement No 1 Management of Existing Underground Petroleum Storage Systems, June 1995” be complied with.
- ii The storage and retail sale of LPG up to 6.0 tonnes shall be Controlled Activity.

c Discretionary Activities

The following activities shall be Discretionary Activities in respect of the matter specified:

- i The use, storage, or disposal of hazardous substances where:
 - a. the quantities exceed those specified in Table 1 for permitted activities in the relevant zone, but are below those specified for non-complying activities; or
 - b. the activity does not comply with any one or more of the Site Standards listed for permitted activities.

- c. the activity does not comply with the requirement for controlled activities.
- ii The manufacturing of hazardous substances.

d Non-complying Activities

The following activities shall be Non-Complying Activities:

- i The use, storage or disposal of hazardous substances where the quantities exceed those specified in Table 1 for discretionary activities in the relevant zone, or;
- ii The storage and disposal of explosives (Category 1a in Schedule 1) in the Residential Zone.

2 SITE STANDARDS

- a All areas or parts of sites where hazardous substances (including waste) are stored, used, loaded or unloaded shall be sealed, banded and roofed or covered.
- b To achieve a, the following specifications are required:
 - i The volume of any containment system shall be 100% of the maximum volume of the hazardous substance to be stored, used, loaded or unloaded when the site is roofed or;
 - ii the volume of any containment system shall be 120% of the maximum volume of the hazardous substance to be stored, used, loaded or unloaded when the site is unroofed;
 - iii the containment system should be designed in such a way as to ensure containment of any hazardous substance that spills due to the collapse of any container (e.g. tank), and the containment from the direct leakage from any container;
 - iv the containment system shall be sealed with impervious materials that are resistant to breakdown from the particular hazardous substances which they are designed to contain;
 - v the containment system and its sealment shall be maintained as and when necessary.
- c The storage of petrol or diesel in above ground tanks in Rural Zones shall be exempt from rules i and ii, providing the tank is at least 20m away from any natural waterway, water race or formed drain.
- d The storage of diesel in above ground tanks in association with residential activities shall be exempt from rules i and ii.

- e Collection of hazardous substances for disposal purposes, or for subsequent use, shall be in containers that seal and contain the hazardous substances collected.
- f All hazardous substance sites shall be adequately signposted according to the Code of Practice for "Warning Signs for Premises Storing Hazardous Substances" of the New Zealand Chemical Industry Council.
- g Any use, storage of radioactive material, including radiation machines, comply with conditions set by the National Radiation laboratory.
- h The storage and use of hazardous substances in association with temporary military training activities shall be exempt from standards (a), (b) and (f).
- i There shall be no storage of hazardous substances within areas of flooding risk identified on the Flood Risk Maps.
- j Any electrical transformer installation with an oil capacity of less than 1000 litres is excluded from the provisions of Rule 2a and 2b above, where operated by a network utility operator as defined in the Resource Management Act 1991.

Note: These Rules are in addition to, and not in substitution for the Site and Zone Standards of the relevant zone, and other legislation that deals with hazardous substances, including the Dangerous Goods Act, Explosives Act, Toxic Substances Act, Medicines Act, Pesticides Act, Health and Safety in Employment Act or any subsequent legislation.

New structures greater than 1000 litres for storing, transferring or using petroleum compounds, chlorinated hydrocarbon solvents, or timber treatment chemicals are discretionary activities for which a land use consent will be required from the Canterbury Regional Council under the Proposed Change 2 to the Transitional Plan.

These hazardous substances rules are an interim measure until the respective consent requirements of the Canterbury Regional Council and the District Council are finalised. If the Regional Council finalises consent processes dealing with these matters, a change will be prepared to the District Plan to ensure that consents are not also required at the District level. In the meantime the District Council will liaise with the Regional Council on any application.

3 RESOURCE CONSENTS - ASSESSMENT MATTERS

General

- a The matters contained in Sections 104 and 105 and Part II of the Act apply to the consideration of resource consents for land use activities.
- b In addition, the Council shall also apply the relevant Assessment Matters set out below.
- c In the case of activities which are Discretionary in respect of a particular matter only, the assessment matters taken into account shall only be those relevant to that matter.

Assessment Matters

In considering whether or not to grant consent or impose conditions, the Council shall have regard to, but not be limited by, the following assessment matters:

- a The extent to which the proposed activity and the proposed site poses a risk to the environment, and in particular:
 - The sensitivity of the surrounding natural and physical environment. Depending on the scale of the proposal this may include separation distances to people-sensitive activities (particularly activities such as schools, rest homes, hospitals, shopping centres etc) or to sensitive natural resources (e.g. aquifers, streams, wetland, habitats).
 - The number of people potentially at risk from the site.
 - The likelihood of the site being affected by a natural hazard.
 - The risk to adjacent property.
 - Cumulative effects of hazardous facilities in the area.
 - Site drainage and off site infrastructure (e.g. stormwater, sewer type and capacity).
 - Transportation safety - including method of transportation, quantities and types of hazardous substances transported, and proposed transport routes.
- b The extent to which the proposed activity can avoid or mitigate any undue risk. Methods can include site lay out, site management and spill contingency planning, transport methods and routes, monitoring and maintenance schedules.
- c The ability of the proposed activity to be established at an alternative location or for the activity to undertake alternative

methods, when it is likely that an activity will result in any significant adverse effects on the environment.

- d The extent to which the proposed site is accessible from the major roading network to avoid heavy traffic volumes in local roads (particularly residential local roads); and the extent to which the proposed site's entry and exit points may pose a problem with existing intersections.
- e The extent to which the activity can comply with the Site and Zone Standards for the relevant zone in question.
- f The extent to which the proposed activity complies with any relevant industrial codes of practice or guidelines.
- g Any other matters that may need conditions to ensure that particular measures are undertaken so that any risk posed by the proposal is avoided or satisfactorily mitigated.

SCHEDULE 1: HAZARDOUS SUBSTANCES

	District Plan Category (see Table 1 for quantities)	UN Classification for the Transportation of Dangerous Goods
Explosives		
nitrate mixtures, nitro-compounds, chlorate mixture	1a	1
Ammunition Includes but is not limited to: gunpowder, or nitro compound adapted and exclusively used for cartridges for small arms	1b	1
Gases Includes but not limited to: LPG, Ethylene, Acetylene, Chlorine, Liquid Oxygen	2	2
Flammable liquids with flash point lower than 61 degrees celsius Includes but is not limited to: Petroleum, Jet fuel, Kerosene	3a	3
Flammable liquids with flash point above 61 degrees celsius and any other petroleum products Includes but is not limited to: Diesel, Oil	3b	3
Flammable liquids (within underground storage tanks only) Includes but is not limited to: Petroleum, Oil, Diesel, Jet fuel, Kerosene	3u	3
Flammable Solids Includes but is not limited to: Nitocellulose, photographic x-ray film, various chemicals (eg. urea nitrate) that are wetted,	4a ¹	4

Note

Category 4a for this plan equals Class 4.1 Categories A and B and Class 4.2 Categories A and C of the UN Classification for the Transportation of Dangerous Goods.

	District Plan Category (see Table 1 for quantities)	UN Classification for the Transportation of Dangerous Goods
metal alkyls		
Flammable Solids Includes but is not limited to: various chemicals (eg: Aluminium powder coated, camphor, phosphorus red), matches, sulphur, fish meal, various sodium compounds	4b	4
Oxidising Substances Includes but is not limited to: Bromates, hypochlorites, nitrate, hydrogen peroxide, organic peroxides	5	5
Timber preservatives Includes but is not limited to: Copper, chromium, arsenic, boron, other water-borne preservatives Light organic solvent preservatives, anti sapstain chemicals	6	3,9
Chlorinated solvents Includes but is not limited to: Bromodichloromethane, Trichloroethane, Chlorodibromomethane 1,1,1 - Trichloroethene, Tetrachloroethene, Trichloromethane Tetrachloromethane, Tribromomethane	7	5,9
Corrosives Includes but is not limited to: sulphuric acid, nitric acid, hydrochloric acid, caustic soda	8	8
Agrichemicals includes herbicides, fungicides, insecticides and other pesticides	9	6,9

TABLE 1: CONSENT STATUS FOR HAZARDOUS SUBSTANCES IDENTIFIED IN SCHEDULE 1

RESIDENTIAL ZONES			
District Plan Category	Permitted Activity	Discretionary Activity	Non-complying Activity
		(notified)	
1a	Nil ²	Nil	Nil
1b	< 15kg	< 50 kg	> 50 kg
2	< 250 litres	< 10,000 litres	> 10,000 litres
3a	< 50 litres ³	-	> 50 litres
3b	< 3,000 litres	-	> 3,000 litres
3u	< 10,000 litres ⁴	-	> 10,000 litres
4a	< 10 kg	-	> 10 kg
4b	< 100 kg	-	> 100 kg
5	< 100 kg	-	> 100 kg
6	< 20 litres	-	> 20 litres
7	< 20 litres	-	> 20 litres
8	< 20 litres	-	> 20 litres
9 – Residential Zones	< 10 litres	-	> 10 litres

² The use of explosives is permitted in all zones but is subject to the Explosives Act and any subsequent legislation. The storage and disposal of explosives is a non-complying activity in the Residential Zone.

³ The 50 litre restriction does not apply to petrol and other 3a flammable liquids contained in a fuel tank of an internal combustion engine.

⁴ Irrespective of this volume permitted by the Council, the Canterbury Regional Council requires a land use consent for the installation of all underground tanks that contain hazardous substances.

BUSINESS ZONES

District Plan Category	Permitted Activity	Discretionary Activity (non-notified)	Non-complying Activity
1a	< 50 kg	> 50 kg	-
1b	< 50 kg	> 50 kg	-
2	< 250 litres	< 40,000 litres	> 40,000 litres
3a	< 3,000 litres	> 3,000 litres	-
3b	< 3,000 litres	> 3,000 litres	-
3u	< 20,000 litres	> 20,000 litres	-
4a	< 50 kg	> 50 kg	-
4b	< 1,000 kg	> 1,000 kg	-
5	< 1,000 kg	> 1,000 kg	-
6	< 20 litres	> 20 litres	-
7 - Business 1, 2 & 3 Only	< 200 litres	> 200 litres	-
8	< 500 litres	> 500 litres	-
9	< 5,000 litres	> 5,000 litres	-

RURAL ZONES

District Plan Category	Permitted Activity	Discretionary Activity (non-notified)	Non-complying Activity
1a	< 50 kg	> 50 kg	-
1b	< 50 kg	> 50 kg	-
2	< 250 litres	< 40,000 litres	> 40,000 litres
3a	< 2,000 litres	> 2,000 litres	-
3b	< 3,000 litres	> 3,000 litres	-
3u	< 20,000 litres	> 20,000 litres	-
4a	< 50 kg	> 50 kg	-
4b	< 1,000 kg	> 1,000 kg	-
5	< 1,000 kg	> 1,000 kg	-
6	< 20 litres	> 20 litres	-
7	< 20 litres	> 20 litres	-
8	< 100 litres	> 100 litres	-
9	< 1,000 litres	> 1,000 litres	-