



17.0 HAZARDOUS SUBSTANCES

17.1 Introduction

There are a range of activities that use, transport and generate hazardous substances within the District. Most hazardous substances are produced, generated or used as a consequence of:

- (i) manufacturing or processing (e.g. electroplating, timber processing or treatment, oils and greases etc);
- (ii) agrichemical spraying (e.g. agricultural, horticultural and forestry etc);
- (iii) domestic use (e.g. waste oils, bleaches, pesticides and solvents etc); and
- (iv) storage (e.g. petroleum and gas).

There are a number of issues concerning the use of hazardous substances. These are:

- (i) reliable information on the quality and nature of hazardous substances as they may affect the environment;
- (ii) the disposal of wastes and residues following use;
- (iii) lack of knowledge concerning the effects of the effects of the use of hazardous substances on the environment;
- (iv) lack of accountability of both resource users and regulatory agencies concerning use and disposal of hazardous wastes; and
- (v) lack of a sufficient database from which to manage hazardous wastes.
- (vi) lack of knowledge about the quantity of hazardous substances used in the District.

Environment Waikato has the primary statutory responsibility in this field. However, there are some initiatives that Council can take from a land use perspective in order for Council to achieve its core responsibilities under the Act for resource management, and to provide policy direction for integrated management with Environment Waikato to deal with the issues associated with hazardous substances. The following objectives, policies and methods have been developed to provide an initiative by Council to manage the land use effects of hazardous substances in accordance with its function under the Act.

Council has adopted the Hazardous Facilities Screening Procedure (HFSP) as the major method for assessing the adverse effects of the storage, use, disposal or transportation of hazardous substances.



17.2 Objectives

- 17.2.1 An environment which is free from any adverse effects of hazardous substances.

17.3 Policies

- 17.3.1 To ensure that the adverse environmental effects from the generation, storage, use, transportation or disposal of hazardous substances are avoided, remedied or mitigated.
- 17.3.2 To provide information to the community concerning the risks and adverse environmental effects caused by hazardous substances.
- 17.3.3 To identify the location of those activities that cause adverse environmental effects through the generation, storage, use, transport, storage or disposal of hazardous substances.
- 17.3.4 To work with Environment Waikato to ensure coordination of provisions related to hazardous substance use and disposal.

17.4 Methods

The following identifies the methods that will be used to achieve the objectives and policies contained in this section of the District Plan.

17.4.1 General

- (i) Rules - Rules and performance standards for the control of activities have been developed that generate, use, store, transport or dispose of hazardous substances commonly found or used within the District.

Refer Policy 17.3.3.

- (ii) Education - To provide information to the community regarding the nature of and the effect of the use and disposal of hazardous substances commonly found or used within the District.

Refer Policies 17.3.1 and 17.3.2.

- (iii) To develop in consultation with Environment Waikato a database identifying the location and type of activities that generate, use, store, transport or dispose of hazardous substances within the District. This information is to be included as part of Council's Hazards Register.

Refer Policies 17.3.1 and 17.3.4.



- (iv) To work with other agencies such as Environment Waikato to encourage activities that use, generate, store, transport or dispose of hazardous substances to adopt methods which avoid, remedy or mitigate the adverse effects of hazardous substances on the environment.

Refer Policies 17.3.1 and 17.3.4.

- (v) To use where appropriate 'Codes of Practice' or provisions contained therein, governing the use of hazardous substances as guidelines for the assessment of activities and the setting of performance standards as conditions on resource consents. (NB These codes may be either Council or Industry developed and may either be incorporated into the District Plan from time to time as an appended document or used as guidelines for practice and assessing resource consent applications).

Refer Policies 17.3.1 and 17.3.3.

- (vi) Council will require resource consent applicants where appropriate to provide information on the storage, transportation, use, production or disposal of hazardous substances proposed as part of any activity to be established in the District.

Refer Policies 17.3.1, 17.3.3 and Section 5 (Administration).

- (vii) Provide information to potential or existing property owners or occupiers concerning hazards and their associated risks related to the generation, use, storage, disposal or transportation of hazardous substances (eg agrichemical sprays) as they may affect any existing or proposed activity carried out on any site within the District. This information may be provided by way of a Land Information Memorandum under Section 44A of the Local Government Official Information and Meetings Act 1987, or a Project Information Memorandum as provided for under Section 31 of the Building Act 1991.

Refer Policies 17.3.1 and 17.3.2.

Council will initiate Plan Changes where appropriate to incorporate new or further information concerning the management of the effects from the generation, use, storage, disposal, or transportation of hazardous substances.



- (i) The Hazardous Facility Screening Procedure (HFSP) shall apply to any new activity using or storing hazardous substances.

Existing activities will not be subject to the HFSP unless they significantly expand or alter their operations. A significant alteration which occurs with the effects of the use are not the same or similar in character, intensity or scale as previously, as lawfully authorised in terms of the Act. A significant change shall be defined as a 20% or greater increase in the storage or use of hazardous substances or a change in the type of process carried out on the site.

The replacement of tanks or other equipment will not attract screening by the HFSP unless this would result in a significant increase in the storage or use of hazardous substances.

The HFSP shall be used as a screening tool to determine:

- a. whether a proposed hazardous activity is permitted in accordance with the defined minimum conditions; or
 - b. whether the proposed hazardous activity requires a consent and additional, merit based assessment of risks; or
 - c. whether there is a need to list the activity in the Hazards Register.
- (ii) With respect to land use planning for hazardous activities, the following matters will be included in the monitoring programmes carried out either by Council or by the consent holder:
- a. information on the location and layout of the facility;
 - b. the quality and availability of plant documentation, including operating procedures;
 - c. information about the nature and quality of the hazardous substances used, stored and transported;
 - d. process description and design;
 - e. emergency planning for the facility;
 - f. transport movements and routes;
 - g. information on waste management; and
 - h. a review of the hazards and safeguards in place.



Where deemed appropriate, Council may require the consent holder to undertake self-monitoring as a condition of resource consent.

Refer Policies 17.3.1 and 17.3.2.

17.4.2 **Specific Rules and Consent Status Matrix**

Rule A The Hazardous Facility Screening Procedure (HFSP) is a procedure set out in Appendix G, Volume 1 of the Plan and is to be applied as follows:

- (i) to any new activity using or storing hazardous substances.
- (ii) to any existing activity which increases the storage or use of hazardous substances by not more than an average of 20% over any given year, over the base year which is the average volume stored or used on the site over the twelve months immediately preceding the date that this section of the Plan became operative.

Rule B The following are permitted activities provided that the conditions in section 17.4.3 are complied with:

- (i) any activity with the *Effects Ratio* calculated in accordance with the HFSP equal or below the *Effects Ratio* specified for the zone in which it is located, as specified in the Consent Status Matrix below.
- (ii) trade waste sewer and waste treatment or disposal facilities, due to the difficulty of identifying the quality and nature of the substances involved.
- (iii) storage or use of hazardous consumer products for private domestic purposes, because the degree of hazard is generally below the scale of potential effects considered by the HFSP.
- (iv) retail outlets for the domestic usage and sale of hazardous substances (eg supermarkets, hardware shops, pharmacies), because storage of hazardous substances is generally in small packages.
- (v) facilities using genetically modified or new organisms.



- (vi) developments that are or may be hazardous but do not involve hazardous substances (e.g. mineral extraction, high voltage transmission lines, radio masts, electrical substations). These are controlled by other District Plan provisions.
- (vii) dust explosions.
- (viii) gas and oil pipelines.
- (ix) fuel in motor vehicles, boats and small engines such as weed eaters, lawnmowers, chainsaws etc.
- (x) the retail sale of petroleum fuels in all zones except in the Residential and Reserve zones, up to a storage of 100,000 litres of petrol and up to 50,000 litres of diesel in underground storage tanks.
- (xi) retail LPG outlets in all zones except in the Residential and Reserve zones, with storage of up to 6 tonnes (single vessel storage) or LPG.
- (xii) the storage of milk provided that there are provisions in place to direct any milk to a treatment facility which is authorised by a rule in the regional plan or by a resource consent granted by the Regional Council.

Consent Status Matrix	
Zone	Effects Ratio Trigger
Residential Zone	0.05
Neighbourhood Retail Zone	0.1
Commercial Core Zone	0.1
Commercial Fringe Zone	0.2
General Industrial Zone	0.75
Rural Zone	0.2
Reserve Zone	0.05
Airport Protection Zone	0.75
Hydroelectric Power Generation Zone	0.75
Heavy Industrial	Not Applicable
Dairy Industrial Zone	0.75



Rule C Discretionary Activities

- (i) Any hazardous facility with an Effects Ratio greater than the Effects Ratio specified for the zone in which it proposes to locate, as-indicated in the Consent Status Matrix below.

Consent Status Matrix	
Zone	Effects Ratio Trigger
Residential Zone	0.05
Neighbourhood Retail Zone	0.1
Commercial Core Zone	0.1
Commercial Fringe Zone	0.2
General Industrial Zone	0.75
Rural Zone	0.2
Reserve Zone	0.05
Airport Protection Zone	0.75
Hydroelectric Power Generation Zone	0.75
Heavy Industrial	Not Applicable
Dairy Industrial Zone	0.75

17.4.3 Minimum Conditions for Hazardous Activities

The following minimum conditions address the discharge of liquids and solids, and shall apply to all hazardous activities.

Site Design

A.1 Any part of a site used for an activity using hazardous substances shall be designed, constructed and operated in a manner that prevents:

- (i) any adverse effects of the intended use from occurring beyond that part of the site designed to be so used;
- (ii) the unauthorised entry or discharge of any hazardous substance into any stormwater drainage system;
- (iii) the unauthorised entry or discharge of any hazardous substance into any sewerage system.

A.2 Any part of a site used for an activity using, storing, manufacturing, mixing, packaging, loading or otherwise



handling hazardous substances shall be designed, constructed and operated in a manner that prevents:

- (i) the contamination of any land and/or water (including groundwater and potable water supplies) in the event of any spill or other unintentional release of hazardous substances;
- (ii) the entry or discharge of any hazardous substance into any stormwater drainage system in the event of any spill or other unintentional release;
- (iii) the entry or discharge of any hazardous substance into any sewerage system in the event of a spill or other unintentional release.

A.3 A site used for an activity which uses or stores hazardous substances shall be designed, constructed and operated in a manner such that any stormwater originating on or collected on the site that has become contaminated:

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

A.3.1 Spill Containment System

All parts of a site used for an activity which uses or stores hazardous substances shall be serviced by a spill containment system which shall be:

- (i) constructed from impervious materials resistant to the hazardous substance used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site;
- (ii) able to contain the maximum volume of the largest tank used, or where drums or other containers are used, is able to contain half of the maximum volume of substance stored;



- (iii) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/or water that has been used for fire fighting purposes that has become contaminate, from entering the stormwater drainage system;
- (iv) able to prevent any spill or other unintentional release of hazardous substances, and any stormwater and/or water that has been used for fire fighting purposes that has become contaminated, from discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by consent.

A.3.2 Stormwater Drainage

All stormwater grates on the site shall be clearly labelled "Stormwater Only" so as to be readable from a minimum distance of 5 metres.

A.3.3 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 operated to prevent the effluent from the washdown area from:

- (i) unauthorised entry or discharge into any stormwater drainage system;
- (ii) unauthorised entry or discharge into any sewerage system;
- (iii) unauthorised discharge into or onto land and/or water (including groundwater and potable water supplies).

B Underground Storage Tanks

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

C Waste Management

- C.1** Any process waste or waste containing hazardous substances shall be managed to prevent:



- (i) the waste entering or discharging into any stormwater drainage system;
- (ii) the waste entering or discharging into any sewerage system;
- (iii) the waste discharging into or onto land and/or water (including groundwater and potable water supplies) unless permitted by a resource consent.

C.2 The storage of any process waste or waste containing hazardous substances shall at all times comply with the conditions in Section A.

C.3 The storage of any waste containing hazardous substances shall prevent:

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

C.4 Any hazardous activity generating waste containing hazardous substances shall dispose of these wastes to an approved hazardous substance disposal facility consented to under the Act.

C.5 Any hazardous activity facility generating waste containing hazardous substances shall operate and maintain a register of the types and quantities of hazardous wastes generated, and the methods and locations of disposal.

17.4.4 **Assessment Criteria for Consent Applications**

Where it has been determined in accordance with the HFSP that a hazardous activity is a Discretionary Activity and will therefore require a resource consent, the consent application shall be accompanied by an assessment of environmental effects. This shall be provided in such detail as corresponds with the scale and significance of the actual or potential effects and risks of the proposed development.

An application will be assessed having regard to the following matters:

- (i) Consistency with the objectives, policies, methods and rules for the relevant zone.



(ii) **Risk Assessment**

A qualitative or quantitative risk assessment shall be required³ as well as addressing in more detail the issues addressed in the HFSP, this assessment shall also include consideration of the following:

- a. identification of potential hazards, failure modes and exposure pathways;
- b. the separation distance to neighbouring activities, with emphasis on people-sensitive activities such as child care facilities, schools, rest homes, hospitals, shopping centres and residential areas;
- c. the location of the facility in relation to the nearest aquifer, waterway, coast or other sensitive environments;
- d. the nature of the sub-soil and the site geology;
- e. the distance to environmentally sensitive areas such as wildlife habitats or water catchments;
- f. assessment of the probability and potential consequences of an accident leading to a release of a hazardous substance or loss of control;
- g. identification of cumulative and/or synergistic effects;
- h. fire safety and fire water management;
- i. adherence to health and safety and/or environmental management systems including the provision of appropriate signage;
- j. spill contingency and emergency planning, monitoring and maintenance schedules.
- k. site drainage and off-site infrastructure, e.g. stormwater drainage system, sewer type and capacity;
- l. the transport of hazardous substances; and
- m. the disposal of wastes containing hazardous substances.

³ Guidance relating to risk assessment for hazardous facilities may be obtained from the Hazardous Industry Planning Advisory Papers published by the New South Wales Department of Planning, Australia.



(iii) **Risk Mitigation and Management**

Consideration will be given to the adoption of specific spill contingency plans, emergency procedures, stormwater management and treatment and disposal procedures for wastes containing hazardous substances, fire safety, monitoring and maintenance procedures, and appropriate site management systems.

(iv) **Alternatives**

Where it is likely that an activity may result in significant adverse effects on the environment, a description of alternative locations or methods for undertaking the activity shall be submitted.

(v) **Traffic Safety**

It should be demonstrated that the proposal will generate no significant adverse effects on the safety of the operation of the adjoining road network and that vehicles transporting hazardous substances will not utilise local roads in residential areas as a regular means of transport. Conditions may be imposed on resource consents that require access along specified routes.

17.5 Principal Reasons

It is one of the functions of Council specified in Section 31 of the Act to minimise the adverse effects of hazardous substances on the environment in order to promote sustainable management of the natural and physical resources of the District including:

- (i) the maintenance and enhancement of amenity values;
- (ii) protection of the environment including waterways, soils, and ecological systems;
- (iii) and protection of the health and wellbeing of people and communities in the District.

17.6 Anticipated Environmental Effects

Improved environmental quality through reduced adverse effects from the storage, use, transportation and disposal of hazardous substances.