29.1 HAZARDOUS SUBSTANCES AND GENETICALLY MODIFIED ORGANISMS DISTRICT WIDE ACTIVITY

29.1.1 INTRODUCTION

Hazardous substances are used in a wide range of activities occurring within the Hastings District, from dry-cleaning clothes, manufacturing industrial products, to controlling pests and plant diseases in the agricultural sector. The use of hazardous substances creates the potential for adverse effects on human health, property or the natural environment. The potential for adverse effects can be exacerbated where the hazardous facilities are located adjacent or near to particularly sensitive environments, such as the Heretaunga Plains Unconfined Aquifer or where used or stored in large quantities.

This section of the District Plan also addresses the issue of the release of Genetically Modified Organisms (GMOs) within the District. The outdoor use of GMOs can have adverse effects on people, communities, tangata whenua, social and cultural wellbeing, the environment and the economy. The introduction of these provisions to the Plan reflects the level of control desired by the community to manage the effects of GMO land use activities. Through community input into the preparation of the Plan, the adoption of provisions to do with the management of GMOs was identified as important to the Districts food producers. As a group they have highlighted concerns regarding the Districts international reputation and marketability associated with GMOs. To counter this approach, during the preparation of this Plan no evidence has been provided by GMO proponents that there will be a GMO market ready within the next ten years (life of this plan). Council's decision to introduce these provisions around the land use management of GMOs is therefore based on a preferred level of environmental risk management determined by the Hastings community. A precautionary approach to the management of GMOs has therefore been adopted. The application of a precautionary approach will mean that Release or Field Testing of any GMO even where the prior approval has been obtained from the Environmental Protection Agency (EPA) is prohibited, so as to avoid the risks of potential adverse effects. This framework does not preclude laboratory testing from being carried out and other technologies from being investigated that may improve production. It is recognised that the community's attitude may change and/or there may be future GMO development opportunities that could result in a net benefit to the District and where the effects can be satisfactorily managed. For this reason a review policy has been built into these provisions to ensure regular consideration of new information on the benefits and/or adverse effects of a GMO activity which might become available.

The use of hazardous substances and genetically modified organisms in New Zealand is primarily managed by the Hazardous Substances and New Organisms Act 1996 (HSNO). The purpose of the HSNO Act is to 'protect the environment, and the health and safety of people and communities by preventing or managing the adverse effects of hazardous substances and new organisms'. The HSNO Act is administered by the Ministry for the Environment and implemented by the Environmental Protection Authority. The new Ministry of Business, Innovation and Employment is also involved with enforcement in terms of hazardous substances.

Hazardous Substances

The HSNO Act provides the general framework for controlling hazardous substances during their entire life-cycle. Requirements apply from manufacturing or importing a substance, through its use, to disposal. This 'cradle-to-grave' approach is intended to ensure that the specific adverse effects posed by hazardous substances are managed consistently and comprehensively.

The Resource Management Act 1991 (RMA) provides scope for additional controls for hazardous substances located on particular sites. Through Section 30 and 31, Regional and District Councils share the function of:

> *The control of any actual or potential effects of the use, development, or protection of land, including for the purpose of –*
>
> *i) the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances.*

On the basis of Ministry for Environment advice the Hastings District Plan takes the approach that hazardous facilities are generally managed adequately through the HSNO Act. Compliance with this legislation will generally ensure that any adverse effects arising from an accident or incident will be internalised within the hazardous facility site. The District Plan therefore seeks to avoid any duplication of regulation with the HSNO Act. An extra layer of protection can however be applied appropriately under the RMA to particularly sensitive environments or in relation to major hazardous facilities, in order to further minimise the potential for adverse effects impacting on the environment or the community. In the case of the Hastings District, the Heretaunga Plains Unconfined Aquifer is considered to be a sensitive environment, while major hazardous facilities will be assessed as to their appropriateness via the resource consent process.

Genetic Modification

The HSNO Act requires that before any GMO can be imported into the country, developed in containment, tested in the field or released into the environment, approval must be obtained from the Environmental Protection Authority (EPA).

Similar to the management of hazardous substances, the RMA provides the scope for District Plans to place additional controls on the use of GMOs, if that control can be justified under Section 32 of the RMA. It is considered that the prohibited status for all GMO land use activities is necessary to reflect social and cultural expectations that Hastings will remain a GM-free District. GMO activities are unacceptable given current social and cultural attitudes among the Hastings community and it is important for the District Plan to reflect the community's expectations. As the Council has adopted a prohibited status for the Release and Field Testing of all GMOs, while approval could be sought and obtained from the EPA their use would unable to the carried out within the Hastings District.

29.1.2 ANTICIPATED OUTCOMES

It is anticipated that the following specific outcomes will be achieved:

HSAO1 Avoidance of the potential effects to the community and the environment from the use, storage and transport of hazardous substances.

HSAO2 Appropriate precaution is taken in the management of hazardous substances over the Heretaunga Plains Unconfined Aquifer.

HSAO3 There is no unnecessary duplication of regulation between the Hazardous Substances and New Organisms Act 1996 and the District Plan with regard to the regulation of Hazardous Substances.

HSAO4 Activities utilise hazardous substances where necessary for their operations, in appropriate locations.

HSAO5 Avoidance of the potential effects from the 'release' or 'field testing' of Genetically Modified Organisms (GMOs) on the community.

29.1.3 OBJECTIVES AND POLICIES

OBJECTIVE HSO1
Relates to Outcomes HSAO1 and HSAO2

To protect the community and natural environment from the adverse effects associated with the manufacture, use, storage or transportation of hazardous substances.

OBJECTIVE HSO2
Relates to Outcome HSAO2

To enable activities to utilise hazardous substances where necessary for their operations, in appropriate locations.

POLICY HSP1
Relates to Objective HSAO1

Ensure that where activities involving hazardous substances are located in proximity to the sensitive environment of the Heretaunga Plains Unconfined Aquifer, they are designed and managed to reduce risks to the environment and community.

Explanation

The protection of the quality of the drinking water, irrigation water and natural watercourses that emanate from the Heretaunga Plains Unconfined Aquifer is critical to the health and economic welfare of the Hawke's Bay community. Industrial Zoned land and intensive horticultural and viticulture operations are located over the unconfined area of the aquifer. Additional protection to that provided by HSNO regulation is therefore considered appropriate to apply to this area to ensure that this critical ground water resource is not contaminated. For this reason the storage, handling or use of Arsenic (As) within the Heretaunga Plains Unconfined Aquifer is a Prohibited Activity via the adoption of Rule HS8.

POLICY HSP2
Relates to Objective HSAO2

To ensure that activities are able to utilise hazardous substances in compliance with relevant regulation as necessary to their operation, without being compromised by 'reverse sensitivity' (that is, by residential or other sensitive activities moving closer and seeking higher amenity levels, including reduced risks from hazardous substances).

Explanation

It is accepted that, provided the use of hazardous substances is undertaken in accordance with HSNO and other relevant regulation, there will be no undue risk to the community. The land use interfaces surrounding existing hazardous facilities need to be managed to ensure that these activities are not compromised by more sensitive activities establishing in close proximity (reverse sensitivity). This policy will be particularly applicable in the case of residential development or other sensitive land uses seeking to establish in proximity of existing activities utilising hazardous substances. This policy does not apply to existing situations where industrial or commercial activities utilising hazardous substances and residential zones or activities are located in close proximity to each other.

POLICY HSP3
Relates to Objectives HSAO1 and HSAO2

Ensure that major hazardous facilities are appropriately sited and managed in order to reduce risks to the environment and community.

Explanation

Major hazardous facilities have the ability to adversely affect the environment and community if they are not appropriately sited and/or

managed. HSNO and associated regulation aims to internalise the effects of hazardous substances to within the site/building they are located on. However, through deeming all major hazardous facilities a Discretionary Activity, it will allow Council the discretion to determine whether proposed locations and methods of risk management are appropriate. This includes opportunity to consider risks to neighbouring property and the community from fire or natural hazard events affecting the hazardous facility.

OBJECTIVE HSO3
Relates to Outcome HSAO3

To avoid any unnecessary duplication of regulation between the Hazardous Substances and New Organisms Act 1996 and the District Plan.

POLICY HSP4
Relates to Objective HSAO3

To not regulate the use, storage or transportation of hazardous substances, in the District Plan where adequate levels of community and environmental protection is already provided by the Hazardous Substances and New Organisms Act 1996 or other legislation and regulation.

Explanation

The previous District Plan contained a comprehensive hazardous substances regulation including rules requiring screening via the Hazardous Facilities Screening Procedure or HFSP. In the late 1990s the HSNO Act had not been fully implemented with transitional provisions still applying and there was belief that hazardous substances also required regulation under the RMA. Current advice from the Ministry for the Environment is that the HFSP is out of date and is a duplication of HSNO regulation. In addition to this the HFSP is difficult to use and was not often used in the assessment of activities under the District Plan. Given this there is a need for change in the management of hazardous substances under the District Plan and part of this change is to avoid the duplication of regulation. Notwithstanding this however, there is still the need to consider the potential impacts of major hazardous facilities and the appropriateness of their location with regard to community and environmental risk.

OBJECTIVE HSO4
Relates to Outcome HSAO5

To protect the community and their social, economic and cultural wellbeing and environment from the adverse effects associated with the outdoor release or field testing of Genetically Modified Organisms through the adoption of a precautionary approach.

POLICY HSP5
Relates to Objective HSAO4

To adopt a precautionary approach to the management of Genetically Modified Organisms by prohibiting the field testing or release of a Genetically Modified Organism.

HSP6
Relates to Objective HSAO4

To adopt a resource management framework for the management of Genetically Modified Organisms (GMOs) that is District specific taking into account environmental, economic and social well-being considerations.

Explanation

In addition to the environmental risks associated with the release of GMOs, there are economic risks caused by the sensitivity of export markets for high value produce to potential GMO contamination. The export of high value produce is critical to Hastings District as one of New Zealand's most significant horticultural and viticultural areas; agriculture is also an

important component of the District's economy. Providing for the wellbeing of the community by giving certainty in prohibiting the field testing or release of GMOs is therefore justified. It is considered that the prohibited status is necessary to reflect social and cultural attitudes amongst the Hastings community. This is founded on a 2012 Colmar Brunton survey that found 84% of respondents believe that Hawkes Bay should remain a GE free food producing region. Although regulating GMOs in the District Plan could be considered a duplication of the HSNO Act 1996, the Hastings District community in seeking a precautionary approach, has requested greater certainty than can be provided by HSNO.

POLICY HSP7
Relates to Objective HSAO4

To review the Plan provisions relating to Genetically Modified Organisms (GMOs), particularly if there is new information on benefits and/or adverse effects of a Genetically Modified Organism activity and/or there is a general community acceptance to the use of Genetically Modified Organisms that have proven to be safe and economically beneficial without adversely affecting the environment and the general social and economic wellbeing of the community.

Explanation

The necessity and relevance of the prohibited activity status for field testing and release of GMOs will be reconsidered at the next plan review. If in the meantime GMO use is proven to be safe and advantageous and the community is accepting that a precautionary approach is no longer warranted, then their prohibited activity status may be overturned by a plan change. This could either be in relation to GMOs in general, or to a specific GMO for which there is a demand for in the community and which poses a low risk with regard to adverse effects and to the economic viability of the production and marketing of GE free produce.

29.1.4 METHODS

The Anticipated Outcomes set out in Section 29.1.2 will be achieved and the Objectives and Policies set out in Section 29.1.3 will be implemented through the following Methods:

HASTINGS DISTRICT PLAN

The Rules contained in the Hazardous Substances DWA Section of the Hastings District Plan work to ensure that additional precaution is exercised in the use and storage of hazardous substances over the Heretaunga Plains Unconfined Aquifer, but generally acknowledge the HSNO Act as providing the appropriate regulation to manage the effects of hazardous substances.

HASTINGS DISTRICT COUNCIL BYLAWS

A number of bylaws have provisions relating to risks from hazardous substances. Part 11 – Fire Control regulates the storage of combustible materials. Part 13 – Nuisances contains regulation surrounding offensive matter and refuse. Part 14 – Public Places covers the disposal and transportation of hazardous substances in public places. Part 16 – Refuse regulates the disposal of hazardous substances by Council collection and at Omarunui Landfill. Part 21 – Water Services regulates discharges, including trade wastes, hazardous substances, waste water and storm water into the Hastings District Council infrastructure and then into the receiving environments.

HAZARDOUS SUBSTANCES AND NEW ORGANISMS ACT 1996

HSNO requires that hazardous facilities may require a location test certificate, approved handler test certificates and/or a stationary container test certificate, dependant on the type and quantity of hazardous substances held at a site.

The HSNO Act requires that when considering an application, the EPA must assess the environmental risks. It must examine issues such as the risk of an organism escaping from a laboratory or the risk of contamination of surrounding plants by pollen from GMOs. In the case of field tests, the EPA must require that they are carried out under strict conditions to reduce any potential risk to the environment. It must also ensure that genetic material is not released outside the field test site and that this material is destroyed once the test is finished.

OTHER LEGISLATION

Other legislation that includes provisions relating to the use, storage, disposal or transportation of hazardous substances includes: the Building Act 1991, Health and Safety in Employment Act 1992, Transport Act 1992 and the Civil Defence Act 1983.

RADIATION PROTECTION ACT 1965 AND RADIATION PROTECTION REGULATIONS 1982

The use, storage and transport of radioactive material is controlled and licensed by the Ministry of Health through the Office of Radiation Safety.

CODES OF PRACTICE AND NEW ZEALAND/AUSTRALIAN STANDARDS

A variety of Codes of Practice and New Zealand/Australian Standards covering various aspects of the hazardous substance industry have been developed by the relevant industries, often in association with local authorities, the Department of Labour, the Environmental Protection Authority or the Ministry for the Environment. Codes of Practice are an approved means of complying with HSNO and are designed to provide guidance on how to eliminate or minimise the risk associated with hazardous substances. A good example of this is the EPA approved code of practice "Management of Agrichemicals NZS 8409:2004".

COMPLIANCE AND MONITORING

Monitoring will be undertaken to ensure that the conditions of resource consents are complied with. In general the appropriate authorities to direct complaints regarding the location or appropriate management of hazardous facilities to (aside from any relating to the rules or standards in this Plan section) will be the Environmental Protection Authority or the Ministry of Business, Innovation and Employment.

INTEGRATED MANAGEMENT

Hastings District Council will work with the Hawke's Bay Regional Council, adjacent local authorities and other statutory agencies and industries where appropriate for the assessment and management of hazardous facilities.

HAWKE'S BAY REGIONAL COUNCIL

The Hawke's Bay Regional Council (HBRC) also has involvement in the management of hazardous substances. The HBRC have responsibility for hazardous substances as they relate to the discharge of contaminants to air, water and land as defined by section 15 of the RMA. The HBRC will also have responsibility for the use, storage, and transportation of hazardous substances where these are associated with the control of the use of land of any river or lake under section 13 of the RMA. They also assist in the safe disposal of hazardous substances.

RESOURCE MANAGEMENT (NATIONAL ENVIRONMENTAL STANDARD FOR ASSESSING AND MANAGING CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH) REGULATIONS 2012

All territorial authorities are required to give effect to and enforce the requirements of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).

These Regulations provide a nationally consistent set of planning controls and soil contaminant values, and ensure that land affected by contaminants in soil is appropriately identified and assessed before it is developed -and if necessary the land is remediated or the contaminants contained to make the land safe for human use.

Resource consent information and monitoring data can be collated to inform the identification of land affected by contaminants in soil.

29.1.5 RULES

The following table sets out the status of activities involving hazardous facilities:

RULE TABLE 29.1.5 – HAZARDOUS SUBSTANCES AND GMOs		
RULE	**LAND USE ACTIVITIES**	**ACTIVITY STATUS**
HS1	The Storage, Handling or Use of Hazardous Substances (excepting Arsenic (As) and Major Hazardous Facilities) within the Heretaunga Plains Unconfined Aquifer.	P
HS2	The Storage, Handling or Use of Hazardous Substances in all other areas (excepting Major Hazardous Facilities).	P
HS3	Activities involving Genetically Modified Organisms that are not classified as Field Trials or Releases. This includes (but is not limited to) research within contained Laboratories, Medical and Veterinary Applications and Food containing Genetically Modified Products that are not Viable.	P
HS4	Permitted activities not meeting the Specific Performance Standards and Terms in Section 29.1.6.	RD
HS5	Major Hazardous Facilities	D
HS6	The outdoor Release of Genetically Modified Organisms	Prohibited
HS7	The outdoor Field Testing of Genetically Modified Organisms	Prohibited
HS8	The Storage, Handling or Use of Arsenic (As) within the Heretaunga Plains Unconfined Aquifer RMU.	Prohibited

29.1.6 SPECIFIC PERFORMANCE STANDARDS AND TERMS

The following Specific Performance Standards and Terms apply to the activities specified below.

29.1.6A THE STORAGE, HANDLING OR USE OF HAZARDOUS SUBSTANCES WITHIN THE HERETAUNGA PLAINS UNCONFINED AQUIFER

(i) Impervious surfaces

All hazardous substances shall be stored and handled on areas which have impervious surfaces. In Industrial Zones, this impervious surface requirement also applies to fuel operated machinery and vehicles.

Note: Underground tanks and pipelines are considered to contain hazardous substances within an impervious surface.

Outcome

The quality of groundwater in the Unconfined Aquifer will be protected from the adverse effects of hazardous substances.

(ii) Stormwater

Facilities shall be provided to prevent hazardous substances from being washed or spilled into natural ground or entering any storm water systems or storm water ground soakage up to a 1% AEP (Annual Exceedance Probability) rain event.

29.1.7 ASSESSMENT CRITERIA – RESTRICTED DISCRETIONARY AND DISCRETIONARY ACTIVITIES

For Restricted Discretionary Activities, the following criteria identify those matters which Council has restricted its discretion over in assessing Resource Consent applications. For Discretionary Activities, the following criteria identify those matters which Council may assess the activity against. However, for Discretionary Activities, Council's assessment is not restricted to these matters.

29.1.7A 1. RISK ASSESSMENT

A risk assessment shall be provided, focussing on the following issues:

(i) Assessment of the probability and potential consequences of an accident leading to the release or loss of control of hazardous substances. This assessment should focus on the ability of the design and management of the site to avoid accidents, such as spill containment measures, fire safety and fire water management, emergency management, site drainage and off-site infrastructure (e.g stormwater drainage system, sewer type and capacity) and the disposal of waste containing hazardous substances.

(ii) Potential risk and effect on people and neighbouring activities, with emphasis on sensitive activities such as residential zones, educational facilities and community facilities.

(iii) Potential risk and effect on natural ecosystems and the life supporting capacity of land and water, including the Heretaunga Plains Unconfined Aquifer, waterbodies and sources of potable water.

(iv) Potential risk and effect on sites of significance to Tangata Whenua, sites of historical or archaeological significance, Recommended Areas for Protection, Outstanding Natural Features and Landscapes or Significant Landscape Character Areas.

(v) The potential for natural hazards to impact on the operation of the hazardous facility.

(vi) The potential for cumulative adverse effects of hazardous substances.

2. ALTERNATIVE LOCATIONS

The inclusion of evidence that alternative locations for the activity have been considered, having particular regard to locations both within the sites and outside of the site.

3. DISTRICT PLAN

Consistency with the Objectives, Policies and Methods of the relevant Zone and of Section 29.1.3 of the Hastings District Plan.

4. RECORD OF EXISTING ACTIVITY

The record of compliance and acceptable risk management of any existing activity where expansion of an existing activity is proposed.

29.1.7B HAZARDOUS FACILITIES WITHIN THE HERETAUNGA PLAINS UNCONFINED AQUIFER NOT MEETING THE SPECIFIC PERFORMANCE STANDARDS AND TERMS IN SECTION 29.1.6.

In addition to the matters listed in 29.1.7A 1-4, an application will be assessed according to the matters listed below:

(a) **Stormwater and sewerage**
The availability of fully reticulated stormwater and sewage disposal systems or on-site treatment systems for the treatment of contaminated wastewater or stormwater from buildings and yards.

(b) **Solid and liquid waste**
The method of disposal of both solid and liquid waste and the volume of waste disposal.