

Chapter 12

SOLID AND HAZARDOUS WASTE

PREAMBLE

Section 62(1)(ha)(i) of the Act provides that a RPS shall state:

For the region, or any part of the region, which local authority shall have responsibility within its own area for developing objectives, policies and rules relating to the control of the use of land for -

...(ii) the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances...

...and may state particular responsibilities for particular hazards or hazardous substances or groups of hazards, or hazardous substances; but if no responsibilities for a hazard or hazardous substances are identified in the policy statement, the regional council shall retain primary responsibility for the hazard or hazardous substance;...

In the meantime in accordance with the above, responsibility for hazardous substances shall rest with the Regional Council. This is subject to review. Subsequent consultation with the territorial authorities will be required to determine which part of these responsibilities will be transferred to them and the extent of the transfer. This will be notified as a variation or change to the RPS as provided for in the First Schedule of the Act.

A 1989 regional waste survey (West Coast United Council, 1989) found that the region's 32 disposal sites were substandard in terms of operation and ten of them were substandard as far as siting was concerned.

There are currently 28 local authority waste disposal sites in the region - or one for about every 1100 people. The number of sites is a direct result of the widely dispersed population of the region. All of these sites are the subject of resource consent applications under section 418(1)(c) of the Act.

Some of the larger waste disposal sites are full and alternative sites are being sought. This presents an opportunity to resolve those problems associated with substandard siting and management and to implement more environmentally acceptable approaches to waste management.

One of the recommendations of the 1989 survey was the preparation of a Regional Solid Waste Management Strategy (West Coast United Council, 1991). The strategy covered a number of waste management issues which were centred around:

- ?? Provision of cost effective services.
- ?? Integrated disposal for the full spectrum of wastes.
- ?? Public involvement.
- ?? Cultural values.
- ?? Public and environmental health protection and nuisance prevention.

- ?? Environmental protection.
- ?? Natural water protection.
- ?? Provision for land use planning.
- ?? Waste reduction.
- ?? Resource conservation and recovery.
- ?? Hazardous wastes.

Key recommendations arising from the strategy were the necessity to establish alternative sites for the three landfills currently serving Westport, Greymouth and Hokitika, the need to establish a regional hazardous wastes facility and the need to close some of the rural landfills. The recommendations are in the process of being implemented.

The region's low and scattered population poses special challenges with respect to waste management. While it is desirable for all landfills to conform to national guidelines with respect to design, siting and operation, these may impose costs that are too high for small communities to sustain. The issue needs to be considered on a case-by-case basis. Mobile skips are used to service some communities, where local landfills have closed. Their use is not entirely without problems, due to their limited volume and the high cost of transport. Illegal dumping is a significant problem in some communities.

A Regional Council inventory of potentially contaminated sites, including waste disposal and industrial sites, has been completed. These include existing sites which may have an accumulation of hazardous substances that are affecting water and soil quality. Excluding current and abandoned mines, it is estimated that there are well in excess of 300 such sites on the West Coast. Monitoring and rehabilitation will be required of any actual contaminated sites which pose threats to human health or to water and soil values.

Occasionally, accidents result in spills of hazardous substances such as fuel from road tankers. These substances inevitably find their way into surface and ground water, adversely affecting ecological and aquatic values.

The Act requires sustainable management of natural and physical resources. To achieve this, landfill sites should be located and managed in such a way that adverse effects in terms of surface and groundwater contamination are avoided, remedied or mitigated. Another outcome of this requirement will be the development of facilities for the safe management and disposal of hazardous wastes.

At least half the volume of the waste stream is a useful resource that should not find its way into landfills. Many of the problems of waste disposal can be avoided by the adoption of waste reduction, reuse and recycling. However recycling can only be considered where it is economic.

Poutini Ngai Tahu view the restoration of all degraded environments, including those affected by waste disposal to be a resource management

priority. The Regional Council will consult with Poutini Ngai Tahu in development of regional plans dealing with adverse effects of waste disposal.

ISSUE 12.1: Effects on human health, ecosystems surface and groundwater resources and land as a result of:

a) The storage, use, transportation, disposal or spills of hazardous substances.

b) Contaminated sites and substandard waste disposal facilities.

Examples of hazardous substances, and wastes are liquid fuels, agricultural sprays, paint strippers, solvents, batteries, transformer oils, asbestos and timber treatment chemicals. A number of matters arise from the transport, storage, use and disposal of hazardous substances and wastes:

?? The 1989 survey described the total annual quantity of hazardous wastes being disposed of as small, being approximately 9 tonnes per year. Although some of this waste may be suitable for controlled disposal with other refuse at a suitable landfill rather than simply mixing with other refuse, real concerns remain as to the fate of such wastes and the consequent effects on soil and water resources. There are no sites on the West Coast which are designed to accept and manage such wastes. This makes the need for a regional system for the storage, treatment and disposal of hazardous wastes all the more apparent.

?? It is known that some industries and farmers hold stocks of unwanted hazardous substances. For example a 1993 survey of the region's 321 dairy farms (West Coast Regional Council 1993) indicated that 5.5% of farmers had unwanted agricultural or other chemicals on their property. Some of these could not be identified. It is reasonable to assume that similar proportions apply to all 1300 West Coast farms. Although the quantities of these chemicals are thought to be low, the Regional Council needs to ensure that unwanted chemicals are either recycled or safely disposed of.

?? Spillage or leaks of hazardous substances occur from time to time through accidents or equipment failure. These have occasionally resulted in danger to human lives and property as well as contamination of soil and water. Emergency situations can involve the intervention of all or any of the emergency services including the fire service, police, ambulance, civil defence, the Maritime Safety Authority, Coast Health Care and the territorial authorities' dangerous goods inspectors. The Regional Council becomes involved through its obligation to manage discharges into water, soil or air. If disposal of emergency spills or leaks proves necessary, their management and disposal at any regional disposal site would be the Regional Council's responsibility. Any regional disposal site will need special storage or containment facilities to deal with these substances.

?? There is also a need to prepare contingency plans for emergency responses to threats or occurrences of leaks or spills of hazardous substances and to determine responsibilities for clean-ups. This need includes incidents related to ships at sea. The issue is one affecting the

whole region. Accordingly, the Regional Council should facilitate the preparation of appropriate contingency plans in co-ordination with other affected agencies (see Issue 5 in Chapter 11 on the Coastal Environment).

The liability for any clean-up of contaminated sites is a complex issue. It is not always possible to establish responsibility for a particular site. In these situations, an assessment of risk is needed before embarking on a clean up of such “orphan sites”. Assistance for funding will be sought from the Crown.

OBJECTIVE 12.1: To avoid, remedy or mitigate adverse effects of hazardous substances and contaminated sites on human health, ecosystems, surface and groundwater resources.

SOLID AND HAZARDOUS WASTE POLICIES 12.1

POLICY 12.1.1 Co-ordinate with territorial authorities the establishment of an adequate regional storage and disposal system for hazardous wastes.

POLICY 12.1.2 In conjunction with other affected parties manage the use, transport and disposal of hazardous substances in a manner which avoids, remedies or mitigates adverse effects on:

- a) Public health;***
- b) Water quality;***
- c) Habitats of indigenous flora and fauna;***
- d) Amenity values;***
- e) Natural character;***
- f) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga;***
- g) The coastal environment, and***
- h) Air quality.***

POLICY 12.1.3 Promote an awareness of the risks associated with the handling and transport of hazardous substances.

POLICY 12.1.4 Ensure the closure and rehabilitation of any existing waste disposal facility where the discharge of contaminants has significant adverse effects unless those effects can be avoided, remedied or mitigated. Matters to be considered when determining if an effect is “significant” will include the need to protect the values listed in Policy 12.1.2.

POLICY 12.1.5 To address the adverse effects of past waste disposal practices through the identification and rehabilitation of contaminated sites.

POLICY 12.1.6 Require the siting, design, construction and management of waste management facilities to avoid, remedy or mitigate the adverse effects of contaminants on:

- a) Public health;***
- b) Water quality;***
- c) Habitats of indigenous flora and fauna;***

Cross reference policies

Poutini Ngai Tahu policies; Heritage policy 6.1; Soils and Rivers policy 7; Water policies 8.2.1 and 8.2.2; Habitat and Landscapes policies 9.1 – 9.6; Coastal Environment policies 11.1.1 – 11.1.6

- d) Amenity values;*
 - e) Natural character;*
 - f) The relationship of Poutini Ngai Tahu and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga;*
 - g) The coastal environment;*
 - h) Air quality;*
- and have regard to national guidelines on their siting, design, construction and management.*

METHODS

- 12.1.1 Encourage landfill operators to analyse the waste stream, using, for example, the New Zealand Waste Analysis Protocol (Ministry for the Environment, 1992a).
- 12.1.2 Encourage waste generators through a user pays approach, to reduce, re-use and recycle waste and to adopt more appropriate methods of production, to achieve these objectives.
- 12.1.3 Co-ordinate with territorial authorities, neighbouring regional councils and the Ministry for the Environment concerning new approaches to be adopted for hazardous substance management. This may require a centrally located West Coast facility for treatment and disposal or, alternatively, the transport of hazardous wastes to outside the region for treatment and disposal.
- 12.1.4 Encourage responsible management of hazardous wastes and substances through news media releases, education programmes and direct contact with significant waste generators.
- 12.1.5 Co-ordinate the preparation of contingency plans or procedures to prevent or deal with emergency spills of hazardous substances.
- 12.1.6 Include in the review of the Regional Land Transport Strategy, the adoption of methods to avoid, remedy or mitigate any adverse effects of the transportation of hazardous substances.
- 12.1.7 Liaise with industry groups and other representative organisations about hazardous substance management.
- 12.1.8 Consider the use of selected codes of practice as a means of ensuring compliance with regional rules.
- 12.1.9 Encourage territorial authorities to collect information on the origin, types, quantities and the present fate of waste.
- 12.1.10 Continue the collection of information on the nature and significance of contaminated sites. Provide information to territorial authorities on such sites for use in land use decision making and the dissemination of information about such sites.
- 12.1.11 Consider providing a collection, recycling, storage and disposal service for hazardous wastes.

12.1.12 The Proposed *Discharge of Contaminants to Land Plan* contains policies and rules for contaminated sites and closed landfills. When such sites are identified, risk assessments and rehabilitation may be required. Territorial authorities will be encouraged to include appropriate provisions in district plans.

12.1.13 Assess the suitability of adhering to national technical guidelines or standards (e.g. Ministry for the Environment 1992b) for siting, design, management and operation of waste disposal facilities on a case by case basis.

EXPLANATION

Policy 12.1.1 recognises the need for an adequate regional storage and disposal system for the management of hazardous wastes. Both this policy and policy 12.1.2 recognise that promotion and development of such systems will need to be achieved by a process of co-operation between agencies either responsible now and/or who may become responsible in the future.

Policy 12.1.2 requires a co-ordinated approach by those who generate, share, use, transport or dispose of hazardous wastes in order to avoid, remedy or mitigate adverse effects.

Policies 12.1.2 and 12.1.3 recognise that hazardous substances can adversely affect environmental and cultural values, public health and safety. Air quality is specifically mentioned in policy 12.1.2 because burning is a method of waste disposal. This can lead to emission of toxic substances and unpleasant odours and for these reasons it is an unacceptable practice. It can also present a risk of fire and explosion. Policy 12.1.3 also recognises that those involved with the transport, handling and disposal of hazardous substances, should be aware of the risks involved and know what to do in an emergency.

Policy 12.1.4 provides a mechanism that will ensure that adverse effects from any existing landfill will be kept to the minimum practicable level.

Policy 12.1.5 is aimed at providing information about contaminated sites, their rehabilitation and aftercare.

Policy 12.1.6 is aimed at existing landfills and new waste management facilities by encouraging operators of these to adhere to national guidelines in order to avoid, remedy or mitigate the listed adverse effects. However, while the need for national standards guidelines is not disputed, the high number of landfill or waste disposal sites required to service the West Coast means that there may be difficulties in imposing costly national guidelines on a low population. Where national technical guidelines and standards are not usable the standards will be determined through the resource consent process.

Once contingency plans for clean up of spills or leaks of hazardous substances are in place, procedures will be more clear and the responsibilities of affected agencies defined.

Information collected on the origin, types, quantities and fate of hazardous substances used in the region will make it possible to identify the degree to which quantities of such wastes can be reduced, re-used or recycled. This can, in itself, result in economic and environmental benefits. Adoption of the New Zealand Waste Analysis Protocol and waste audits will enable this to be carried out in a standard manner.

Regulation is important in order to ensure that unwanted hazardous substances are safely disposed of at sites that meet acceptable environmental standards. It will also ensure that any contaminated sites which pose a high level of risk are adequately rehabilitated - or safely closed down.

The management and disposal of hazardous substances in a manner that protects human health, safety and the environment will continue to be promoted. Inappropriate disposal practices continue in some areas. This makes regulation a necessary option for avoiding, remedying or mitigating adverse effects of hazardous waste disposal. With new landfills about to be commissioned for Westport, Greymouth and Hokitika - which will service two thirds of the West Coast population - the opportunity exists now to address current and future problems.

While the Regional Council supports the principle of waste generators paying for treatment and disposal, this approach needs to be carefully assessed and kept in balance to avoid it acting as a disincentive and resulting in illegal or improper methods of waste disposal. A collection service for unwanted hazardous substances from farms, industry and households could be provided. This will only be done if those wastes can be appropriately managed afterwards.

The Regional Council is responsible for developing objectives, policies and rules relating to the control of the use of land for the prevention or mitigation of the adverse effects of the storage, use, or transportation of hazardous substances. It (the Regional Council) will co-ordinate with territorial authorities and others who are involved with hazardous substances to develop a regional approach to management and disposal systems for hazardous substances.

ANTICIPATED ENVIRONMENTAL RESULTS

- 12.1.1 Contingency plans with appropriate response procedures in place to deal with likely and actual hazardous substance spills, leaks or seepage.
- 12.1.2 Reduced contamination of ground and surface water from hazardous substances.
- 12.1.3 Reduced adverse effects from land contamination, particularly from landfills.

ISSUE 12.2 Solid wastes which are disposed of via landfills for which alternative options are available, including waste reduction, reuse and

recycling.

Although there will always be a need to dispose of waste, there are several reasons for promoting the four “R’s” in the waste management hierarchy (resource recovery, reduction, reuse and recycling). These include longer landfill life, reduced surface and groundwater pollution, decreased threats to ecological values and to the health of people, improved visual and amenity values and a lower likelihood of unpleasant odours and rubbish fires.

In recent years there has been a growing regional awareness of the need to minimise waste. Some community groups have responded by initiating kerbside recycling schemes for items such as paper and glass. At some landfills organic waste is being stockpiled for composting. Yet much of the material discarded by householders, trade and industry is still wasted by disposing of it in landfills. A recent amendment to the Local Government Act gives territorial authorities clear responsibilities for the preparation of waste management plans which include implementation of the four R’s.

High transport costs, limited volumes of recyclable resources and fluctuating demand for some items have led to the closure of some recycling activities.

Although the objectives and policies below concern solid wastes, they also have application to liquid and gaseous contaminants.

OBJECTIVE 12.2 The reduction of the amount of solid waste which requires disposal.

SOLID AND HAZARDOUS WASTE POLICIES 12.2

POLICY 12.2.1 Encourage solid waste generators to produce less waste.

POLICY 12.2.2 Promote disposal of recyclable or re-useable wastes at purpose-built facilities.

POLICY 12.2.3 Promote the development of community-based refuse collection, disposal and reduction services.

METHODS

12.2.1 In conjunction with territorial authorities, the Regional Council will promote waste reduction, reuse and recycling via recycling directories, press releases, displays and liaison with community groups.

12.2.2 Encourage analysis of the solid waste stream on the West Coast using the New Zealand Waste Analysis Protocol.

12.2.3 Investigate the benefits and costs of using economic instruments such as a user pays approach to waste disposal.

12.2.4 Liaise with other regional councils and industry on waste outlets.

Cross reference
policies
Water policies
8.2.1-8.2.4.

EXPLANATION

Policies 12.2.1 and 12.2.2 recognise that a significant proportion of waste can be reduced through not producing it in the first place. Organic waste comprises at least 50% of the waste stream and can usually be composted. Other wastes can be re-used. For example, wood can be used for domestic fires. Some waste, such as newspaper, can also be recycled.

Policy 12.2.3 recognises that some West Coast communities are successfully running their own waste management schemes. These incorporate waste reduction, re-use and recycling. These models could have wider application on the West Coast.

Waste reduction, reuse and recycling rely almost wholly on public support. The importance of promotion and provision of information cannot be understated. The Regional Council will continue to investigate and promote waste reduction measures by providing information on commercial opportunities, for example on recycling (Stengs 1991), and by assisting community groups such as the West Coast Recycling Coalition to implement the objective. Measurement and classification of the solid waste stream using nationally accepted standard methodology will help to identify how the volume of waste can be reduced.

Regulation is not considered a desirable method of achieving the objective. This is because waste reduction, reuse and recycling measures rely on a strong degree of public support. Unlike most other parts of New Zealand, recycling of materials such as plastic, glass and cardboard is currently uneconomic due to high transport costs, economies of scale and low demand. Practicalities make the ideals of the 4R's difficult to implement but territorial authorities should retain a positive and proactive liaison role. Communities can pursue waste management goals via submissions to local authority annual plans.

Territorial authorities have a role to publicise and promote ways of reducing waste and recycling. This should be done in consultation with community groups and co-ordinated so as to avoid duplication. Territorial authorities have primary responsibilities in this area.

ANTICIPATED ENVIRONMENTAL RESULTS

1. Less waste entering landfills.
2. Measurement and classification of the solid waste stream in the region, to determine options for waste management and a subsequent reduction of the volume of solid waste that is disposed of.

ISSUE 12.3 Environmental effects of disposal of human and stock effluent on land and into water from mobile sources.

West Coasters consider the disposal of toilet waste from mobile sources such as road and rail vehicles at other than approved disposal sites, to be unacceptable. Adverse effects on aquatic and ecological values, health hazards (such as the spread of *Giardia sp.*), aesthetic degradation, impacts

upon mahinga kai resources and the relationship of Maori with ancestral land, water and other taonga, all contribute to this view. With the region attracting high numbers of tourist travellers by rail and road, this is a significant resource management issue.

Campervans and caravans are one source of such waste. Many campervans now have portable toilets or containment facilities which can be emptied at specifically designed sites. The Regional Council believes that all registered camping grounds on the West Coast should provide waste disposal facilities for emptying containment tanks. The number of camping grounds providing this facility on the West Coast is steadily increasing. This trend, together with education of travellers by the tourist industry and other organisations, suggests that the extent of the problem should decrease.

Roadside dumping of campervan waste and non-use of toilets is a problem, particularly around rest areas. Rest areas that have no adequate toilet facilities are frequently used for overnight camp sites. Greater use of existing toilet facilities would also reduce health hazards and adverse environmental effects. This is not always practicable for recreational groups such as trampers and touring cyclists. The Regional Council will support any moves by organisations such as the Department of Conservation, Transit New Zealand, and the territorial authorities to install additional facilities, and the encouragement of their use.

Discharge of waste from vehicles carrying livestock can damage road surfaces, be a danger to other road users and affect both surface and ground water quality.

OBJECTIVE 12.3 To encourage the disposal of human and stock effluent from mobile sources at official disposal sites and the provision of adequate public toilet facilities along tourist routes or areas.

SOLID AND HAZARDOUS WASTE POLICIES 12.3

POLICY 12.3.1 Avoid, remedy or mitigate the adverse effects of waste discharges on water quality from vehicles carrying stock or passengers, campervans and vehicle washing facilities.

POLICY 12.3.2 Encourage the provision of adequate public toilet and toilet pump out facilities.

Cross reference policies

*Water policies
8.2.1-8.2.3,
Habitat and
Landscape policies
9.1-9.4 and Coastal
Environment
policies 10.1.1-
10.1.4*

METHODS

12.3.1 The importance of disposing of human wastes only at official disposal sites will be stressed in promotional material prepared in consultation with the West Coast Tourism Council, the Department of Conservation and companies operating campervans. The Regional Council will ask the Minister for the Environment to promulgate national guidelines for disposal of sewage from mobile sources. It may be effective to erect signs at campsites and along appropriate points on the highways servicing the West Coast indicating the illegality of haphazard disposal.

- 12.3.2 Promotion will also consist of widely advertising the location of approved disposal sites. This is already being carried out by the tourism industry and camping ground operators. The Regional Council will actively seek to increase the number of official disposal stations on the West Coast by liaising with commercial caravan and motor camp operators, promoting the use of road signs to indicate the presence of disposal stations, and encouraging the use of the standard disposal site symbol.
- 12.3.3 Further development of public toilet facilities at strategic locations will be encouraged through consultation with Transit New Zealand, the territorial authorities and the Department of Conservation. Use of toilets that allow for breakdown of wastes on site will be encouraged where there is no adequate sewage disposal system.
- 12.3.4 Advocate adherence to the New Zealand Environmental Care Code - especially by people who do not have access to normal toilet facilities whilst pursuing outdoor activities.
- 12.3.5 The Regional Council in association with territorial authorities will encourage camping ground operators to provide facilities for emptying sewage from campervan and caravan containment tanks.
- 12.3.6 Advocate to Central Government the need to regulate discharges from vehicles.

EXPLANATION

Policy 12.3.1 deals with the range of adverse effects arising from the disposal of human sewage and stock effluent on land or into water from mobile sources.

As most problems associated with toilet wastes along transport routes are caused by travellers, voluntary adherence through public education is considered extremely important. Travellers must be made aware that alternative and environmentally safe methods of toilet waste disposal exist. These should include provision of suitable disposal facilities at commercial campervan and caravan sites and toilet facilities at strategic locations such as along principal tourist routes. Policy 12.3.2 addresses the problem associated with non use or lack of strategically located public toilet facilities.

The Regional Council is responsible for controlling the disposal of contaminants onto land or into water. The territorial authorities are responsible for managing the disposal of toilet waste to sewage treatment facilities and directing commercial campervan and caravan park operators to provide for suitable sewage collection and disposal facilities for users of their sites.

ANTICIPATED ENVIRONMENTAL RESULT

- 12.3.1 Reduced risks to health, degradation of ecological and aesthetic values arising from disposal of toilet wastes and effluent from vehicles carrying livestock.

