



# Regional Plan for Discharges to Land

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**Operative**     12 April 2002

The Common Seal of the West Coast Regional Council  
was affixed in the presence of:

.....  
J Clayton

**CHAIRMAN**

.....  
T Day

**CHIEF EXECUTIVE OFFICER**



## **CHAIRMAN'S FOREWORD**

It gives me great pleasure to present to you the Regional Plan for Discharges to Land for the West Coast Region.

The Proposed Plan was publicly notified in February 1998. Preparation of the Plan has followed the statutory process of submissions and hearings.

The Regional Plan for Discharges to Land has been developed to be consistent with the Regional Policy Statement, which is the Council's main policy document setting the framework for sustainable management of the West Coast's natural and physical resources.

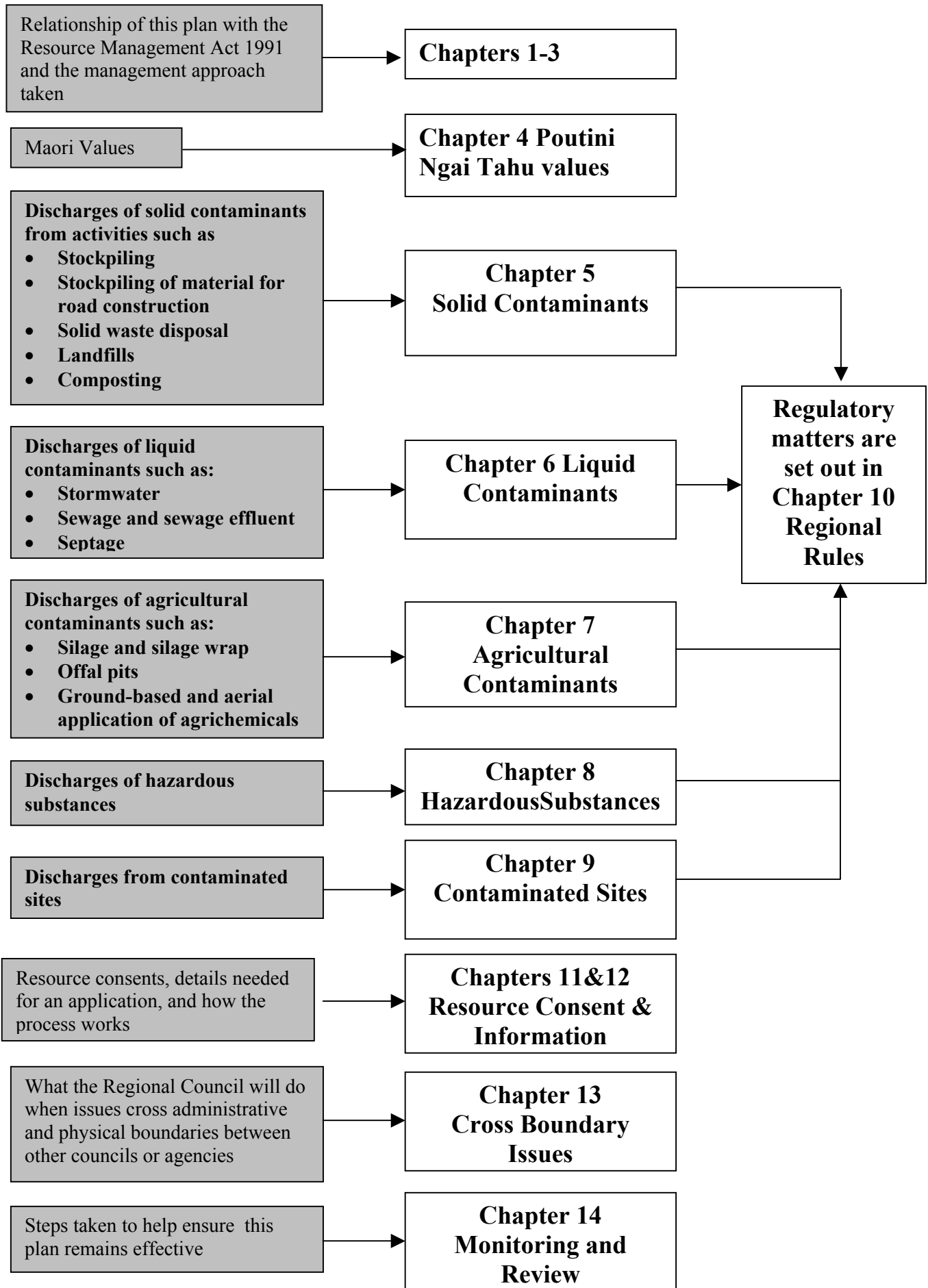
Other regional plans prepared by the West Coast Regional Council include those that manage resources such as air quality, the coastal marine area, and land and riverbed disturbance. This suite of regional plans will assist Council to achieve an integrated approach to sustainable management of resources which are part of their functions under the Resource Management Act 1991.

On behalf of Council I would like to thank all of those who participated in the submission and hearings process. Your contributions have assisted us greatly in developing this Plan to manage discharges of contaminants to land.

I look forward to continue to work with you toward a sustainable future.

John Clayton  
CHAIRMAN

# HOW TO USE THE REGIONAL PLAN FOR DISCHARGES TO LAND



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# Chapter 1

## INTRODUCTION

### 1.1 INTRODUCTION

The purpose of the Resource Management Act 1991 (referred to in this document as “the RMA”) is to promote the sustainable management of natural and physical resources. The purpose of the RMA is stated in section 5 as follows:

1. *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
2. *In this Act, “sustainable management” means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while -*
  - a. *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
  - b. *Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
  - c. *Avoiding, remedying or mitigating any adverse effects of activities on the environment.*

Section 30 of the RMA gives regional councils responsibility for a number of matters relating to the sustainable management of natural and physical resources, including the control of the discharge of contaminants to land. In addition to this, it gives regional councils the power to prepare any plans it considers necessary to carry out any of its functions.

The Second Schedule of the RMA allows for the following to be provided for in regional plans:

1. *Any matter relating to the use, development, or protection of any natural and physical resources for which the regional council has responsibility...including the control of...*
  - (c) *Discharges of contaminants into or onto land, air, or water,...*
  - (e) *Use of land for the purpose of - ...*
    - (v) *The prevention or mitigation of any adverse effects of the storage, use, disposal, and transportation of hazardous substances...*

and

4. *Any matter relating to the management of any actual or potential effects of any use, development or protection...on...*

*The control of the discharge of contaminants to land is a function of the Regional Council*

*(d) The creation, minimisation, recycling, treatment, disposal, and containment of all forms of contaminants.*

Section 2 of the RMA defines a contaminant (in relation to discharges to land) to include:

*Any substance (including gases, liquids, solids, and micro-organisms) or energy (excluding noise), or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat...when discharged onto or into land...changes or is likely to change the physical, chemical or biological condition of the land...onto or into which it is discharged....*

By definition, a contaminant has the capacity to change the environment into which it is discharged. This change could be physical, chemical or biological. For example, a contaminant such as a hazardous waste may cause long-term contamination of soil, endanger human health, damage ecosystems in the area, result in odours which affect local air quality, and affect water quality through contaminated runoff. It is potential adverse effects of this nature that the Regional Council seeks to avoid, remedy or mitigate through the preparation and implementation of this Plan.

## 1.2 PURPOSE OF THIS REGIONAL PLAN

The preparation of this Plan will assist the Council to:

- Achieve the purpose of the RMA, which is the sustainable management of natural and physical resources;
- Implement its policy and regulatory functions under the RMA;
- Achieve the objectives and implement the policies relating to the discharge of contaminants to land, as outlined in the Regional Policy Statement.

In addition this Plan will give territorial authorities, industry and the public directions on how discharges of contaminants to land should be managed.

## 1.3 SCOPE OF THE PLAN

This Plan is a companion to the Regional Policy Statement 2000 (referred to in this document as “the RPS”). This Plan takes the Regional Policy Statement one step further by setting out in more detail the objectives, policies, methods and rules relating to the discharge of contaminants to land. The Plan applies on the landward side of the boundary of the coastal marine area<sup>1</sup>.

Discharges of contaminants to land are covered in Chapters 5 - 9 of this Plan in the form of issues, objectives, policies and methods as follows:

*The Regional Council seeks to avoid, remedy or mitigate adverse effects on water quality, human health etc through implementation of this Plan*

*This Plan highlights the directions the Regional Council will take on how discharges of contaminants to land should be managed*

*The discharges covered in this plan are solid*

<sup>1</sup> The legal definition of the coastal marine area is contained in Section 2 of the RMA.



1. the discharge of solid contaminants to land (Chapter 5.0);
2. the discharge of liquid contaminants to land (Chapter 6.0);
3. the discharge of agricultural contaminants to land (Chapter 7.0);
4. the discharge of hazardous substances to land during use, storage, transportation or disposal (Chapter 8.0); and
5. discharges from contaminated sites (Chapter 9.0).

In addition, the Regional Council recognises the contribution and importance of Poutini Ngai Tahu in the management of the discharges of contaminants to land, including Regional Plan preparation and as such addresses their concerns in a separate section.

#### 1.4 STRUCTURE OF THE PLAN

The structure of this Plan follows the requirements of the RMA with respect to contents of Regional Plans (Section 67(1)).

**Chapters 1 and 2** of this Plan set the background for the preparation of a Regional Plan for Discharges to Land, and the statutory framework in which this Plan fits.

**Chapters 3 & 4** of this Plan identify the approach that the Regional Council has taken in managing the discharges of contaminants to land, including the precautionary approach, and a discussion of the role of national guidelines, best practicable option and other implementation methods. It also includes a section highlighting the issues of concern to Poutini Ngai Tahu.

**Chapters 5 - 9** deal with the issues, objectives, policies, methods and anticipated environmental results (AER's) in detail. The AER's are environmental outcomes that are anticipated 10 years from the implementation of the Plan. The issues discussed are as follows -

##### ❑ Solid Contaminants (Chapter 5.0)

This section of the Plan contains issues, objectives, policies, methods and anticipated environmental results for controlling discharges of solid contaminants into or onto land. Solid wastes in this Plan refers to domestic, industrial and commercial solid waste which when discharged into or onto land is likely to change the physical, chemical or biological condition of the land onto or into which it is discharged. Solid contaminants of agricultural origin are addressed in Section 7.0, and hazardous substances are addressed in Section 8.0.

##### ❑ Liquid Contaminants (Chapter 6.0)

This section of the Plan contains issues, objectives, policies, methods and anticipated environmental results for controlling discharges of liquid contaminants into or onto land. The liquid contaminants of agricultural origin are addressed in Section 7.0, and hazardous substances are addressed in Section 8.0.

*wastes, liquid contaminants, agricultural contaminants, hazardous substances and contaminated sites*

*The structure of this Plan is designed to follow the requirements of the RMA in terms of contents of Regional Plans*

❑ Agricultural Contaminants (Chapter 7.0)

This section of the Plan contains issues, objectives, policies, methods and anticipated environmental results for controlling discharges of agricultural contaminants into or onto land. Agricultural contaminants have been given their own section because of the importance of agriculture in the Region. A separate section makes the Plan easier to use for those involved in agricultural activities. It is important to note that the separation of agricultural contaminants from other liquid contaminants, solid wastes and hazardous substances does not imply that the adverse effects of agricultural contaminants are greater, nor that they be dealt with in a different way, unless the effects are different.

❑ Hazardous Substances (Chapter 8.0)

The Regional Council has a legislative responsibility to avoid, remedy or mitigate the adverse effects on the environment caused by hazardous substances. This section of the plan contains issues, objectives, policies, methods and anticipated environmental results for controlling discharges of hazardous substances into or onto land. This includes planned discharges (e.g. agrichemicals) and unplanned discharges (e.g. spills, inappropriate storage, uncontrolled use of hazardous substances). The methods and rules are aimed at supporting the implementation of integrated and environmentally sound hazardous substance and waste management practices across the region.

❑ Contaminated Sites (Chapter 9.0)

This section of the Plan contains issues, objectives, policies, methods and anticipated environmental results for controlling discharges from contaminated sites and discharges associated with the management or clean up of contaminated sites.

**Chapters 10-12** of this Plan contain the regional rules (Chapter 10.0), along with details on the resource consent process (Chapter 11.0), and the information that is required with resource consent applications (Chapter 12.0).

**Chapter 13** deals with administrative issues, namely cross boundary issues of this Plan (Chapter 13.0).

**Chapter 14** addresses plan effectiveness issues, including monitoring and review of this Plan (Chapter 14.0).

## 1.5 RELATED TOPICS

This Regional Plan seeks to achieve sustainable management of the natural and physical resources of the region. This requires an integrated approach, consistent with s30(1)(a) of the RMA, taking an all encompassing view of resource management. It requires that decision-making about any particular resource take into account the likely effects

*This Plan is an important part of achieving integrated management on the West Coast*

on other natural and physical resources. It also requires an approach that meets the social, economic, and cultural needs of the people and communities of the West Coast, now and in the future.

The Regional Council has prepared a number of regional plans to assist in carrying out its functions under the RMA.

The implementation of these regional plans, and any others which may be developed by the Regional Council, along with the Regional Plan for Discharges to Land, will set in place integrated management of the land, air and water resources of the Region. There are a number of issues which are common to more than one plan. Cross-referencing between these plans will assist in achieving integrated management.

## 1.6 THE DISCHARGE OF CONTAMINANTS TO LAND

There are three circumstances in which the Act controls discharges to land:

- No person may discharge any contaminant onto or into land that may result in that contaminant, or any other contaminant, entering water, unless the discharge is expressly allowed by a rule in a regional plan and any proposed regional plan, a resource consent, or regulations: *section 15(1)(b)*;
- No person may discharge any contaminant into or onto land from any industrial or trade premises unless the discharge is expressly allowed by a rule in a regional plan and any proposed regional plan, a resource consent or regulations: *section 15(1)(d)*;
- No person may discharge any contaminant into or onto land from any source, whether moveable or not, if the discharge contravenes a rule in a regional plan, or a proposed regional plan, unless the discharge is expressly allowed by a resource consent, regulations, or by section 20 (certain existing lawful activities allowed): *section 15(2)*.

If the discharge to land does not contravene a rule in a regional plan or proposed regional plan, and does not come within section 15(1)(b) or section 15(1)(d), the discharge is permitted.

In preparing this Regional Plan the Regional Council recognises that not all discharges into or onto land from industrial or trade premises are going to have significant adverse effects on the environment. For this reason the Regional Council will allow discharges from industrial or trade premises if it is satisfied that the discharges have only minor environmental effects, and that any other adverse effects can be controlled through conditions placed on the activity.

## 1.7 CONSULTATION WITH TANGATA WHENUA

Part II of the RMA requires that regional councils provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga as a matter of national importance (s6). In addition they must have regard to kaitiakitanga which is defined as stewardship or guardianship, and can encompass a range of Maori resource management strategies (s7). The RMA also requires regional councils to take into account the principles of the Treaty of Waitangi (s8).

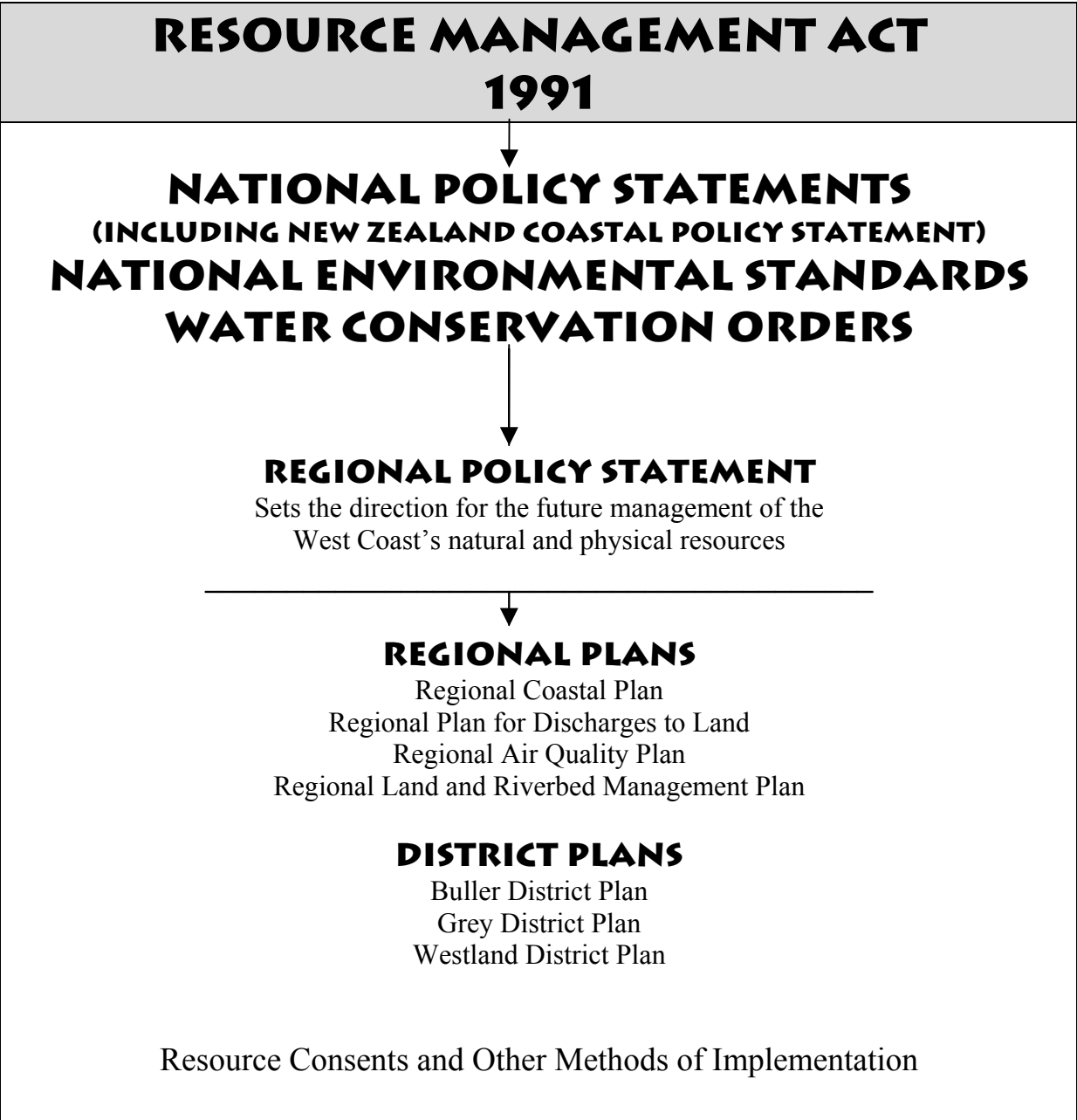
Through consultation, Poutini Ngai Tahu have been provided with opportunities for input into this Plan. A regional hui to address the concerns of Poutini Ngai Tahu in relation to the discharge of contaminants to land was held on the 12th April 1995. The outputs of the hui have been incorporated into Sections 4.0-9.0 of this Plan.

*An important part of the Plan preparation process is consultation with Tangata Whenua*

**Chapter 2**  
**STATUTORY FRAMEWORK**

**2.1 RELATIONSHIP WITH OTHER RESOURCE MANAGEMENT DOCUMENTS**

This Regional Plan fits within a hierarchy of national, regional and local resource management plans and other documents as shown below.<sup>2</sup>



<sup>2</sup> Adapted from Otago Regional Council (1994).

The Regional Policy Statement (RPS) may not be inconsistent with any national policy statements, national environmental standards, or water conservation orders. Regional Plans and District Plans must not be inconsistent with the RPS. District Plans must not be inconsistent with Regional Plans.

At the regional level the RPS provides an overview and the means of achieving integrated sustainable management of the region's natural and physical resources. It is a statement of intent as to how regional resource management issues can be addressed, and while it has statutory power it only describes, rather than prescribes, methods which could be used to attain the stated objectives.

## 2.2 REGIONAL POLICY STATEMENT

The RPS has been prepared by the Regional Council under the RMA, in order to provide an overview of the resource management issues, objectives and policies for the Region. The objectives, policies and methods in the RPS set the framework for the integrated management of natural and physical resources in the Region.

Objectives and policies relevant to this Regional Plan are contained in the RPS in the section relating to solid and hazardous wastes, as well as in other sections of the RPS including water quality, habitat and landscape modification, air quality, soil conservation and the coastal environment. The objectives, policies, methods and regional rules outlined in this Plan set out in more detail the direction of the West Coast RPS, particularly by way of rules.

Regard must be had to the relevant objectives and policies in the RPS as well as the provisions of this Plan when a resource consent is applied for to discharge contaminants to land.

## 2.3 RESPONSIBILITIES

### West Coast Regional Council

Section 30 of the RMA gives regional councils the following responsibilities in order to give effect to the purpose of the RMA with respect to the discharge of contaminants to land:

- (a) *the establishment, implementation and review of objectives, policies and methods to achieve the integrated management of the natural and physical resources of the region;...*
- (c) *the control of the use of land for the purpose of:...*
  - (v) *the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances...*
- (f) *the control of the discharge of contaminants into or onto land.*

*The Regional Policy Statement sets the direction for the future management of the West Coast's natural and physical resources*

*The Regional Council has primary responsibility for managing water and pollution through the control of the discharge of contaminants to land*

Regional councils, therefore, have primary responsibility for the control of the discharge of contaminants. In particular, the RMA allows regional councils to make regional plans to control discharges to land. Preparation of a Discharge to Land Plan is not mandatory. However, public concerns over the discharge of contaminants to land identified a need for such issues to be addressed.

**Territorial authorities**

The functions of territorial authorities relevant to the control of the discharge of contaminants to land under section 31 of the RMA include:

- (a) the establishment, implementation, and review of objectives, policies and methods to achieve integrated management of the effects of the use, development or protection of land and associated natural and physical resources of the district:*
- (b) the control of any actual or potential effects of the use, development, or protection or land, including...the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances:*

Although regional councils have primary responsibility for the control of discharges of contaminants to land, the RMA gives territorial authorities responsibility for a number of closely related matters, and there is some potential for overlap of responsibilities, particularly with respect to hazardous substances issues related to the use of land. In recognition of this potential for duplication the RPS states that:

*“...there....are overlapping functions of the Regional Council and territorial authorities. The RPS is an appropriate means of rationalising the administration of these....”*

To address this, the RPS contains policies and methods relating to integrated management and cross-boundary issues. The relevant legislative functions of the regional council and territorial authorities are identified, and applied in the West Coast context. Functions and roles relating to land uses and discharges are defined in the policies and methods of the relevant chapters of the RPS.

The provisions for addressing the overlap of functions in the RPS include the adoption of consultation and liaison, directives for regional and district plan provisions and issues, and promotion of information collection and sharing. These are adopted to minimise the potential for duplication.

**2.4 OTHER LEGISLATION**

There is other legislation that deals with the discharge of contaminants to land. The RMA, the RPS and this Plan do not replace, but rather complement this other legislation, which includes:

*The Act gives territorial authorities responsibility for a number of closely related issues and there is some potential for overlap*

*There is other legislation that deals with the discharge of contaminants to land.*

- ❑ The **Local Government Act 1974**, which includes provisions relating to the delivery of waste management services by local authorities;
- ❑ The **Health Act 1956**, which places a duty on local authorities to control nuisances (such as those that may arise from contaminants), and contains provisions relating to the collection and disposal of refuse, and offensive trades;
- ❑ The **Litter Act 1979**, which contains provisions relating to litter and litter control, and is administered by territorial authorities, Transit New Zealand, and other public authorities;
- ❑ The **Dangerous Goods Act 1974**, which licences the packing, marking, handling, carriage, storage and use of dangerous goods, and is administered by the Department of Labour and local authorities;
- ❑ The **Transport Act 1962**, which contains various provisions relating to the transportation of hazardous substances, and is administered by the Police and the Ministry of Transport;
- ❑ The **Toxic Substances Act 1979**, which contains provisions relating to the importation, manufacture, labelling, sale, disposal and general handling of toxic substances, and is administered by the Ministry of Health (principally through the Toxic Substances Board);
- ❑ The **Pesticides Act 1979**, which is administered by the Ministry of Agriculture (principally through the Pesticides Board), and regulates the control, sale and use of pesticides;
- ❑ The **Explosives Act 1957**, which is administered by the Department of Labour, and provides for the storage and transport of explosives;
- ❑ The **Radiation Protection Act 1965**, which is administered by the Ministry of Health (principally through the National Radiation Laboratory) and deals with the control of radioactive substances;
- ❑ The **Building Act 1991**, which is administered by the Department of Internal Affairs, the Building Industry Authority, and by territorial authorities, and which covers health issues connected with construction and design of buildings, including the safe storage of hazardous substances to prevent their release into the environment in the case of fire (Wellington Regional Council, 1994).
- ❑ The **Hazardous Substances and New Organisms Act 1996**, (HSNO) which is administered by the Environmental Risk Management Authority, territorial authorities, Department of Labour, Ministry of Commerce, Land Transport Safety Authority, Ministry of Health and



others. 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 designed to pull together the management of hazardous substances into one comprehensive law that focuses on all of the hazards that these substances present, and their effects. The HSNO replaces: the **Pesticides Act 1979**, the **Toxic Substances Act 1979**, the **Explosives Act 1957**, and the **Dangerous Goods Act 1974**.

The RMA gives the Regional Council control of the discharge of contaminants to land. Additional means of controlling land uses include the use of rules in district plans and territorial authority by-laws.



## Chapter 3

# MANAGEMENT APPROACH

### 3.1 INTRODUCTION

This section outlines the general approach taken in this Regional Plan to sustainably manage the discharge of contaminants to land on the West Coast.

### 3.2 PRECAUTIONARY APPROACH

In the development of the objectives, policies, rules and other methods of implementation of this Plan, the Regional Council has taken a precautionary approach. This approach has been taken where the Regional Council has not undertaken sufficient monitoring, and where there is insufficient other information available relevant to the West Coast, to demonstrate that the effects of certain activities are minor.

Where the actual and potential effects of an activity are known the precautionary principle does not apply. Where the effects are potentially significant, but little understood, the principle applies and the Council is required to avoid, remedy or mitigate any potential adverse effects.

In dealing with the scarcity of environmental monitoring data, the Regional Council has taken a proactive approach by preparing a Regional Monitoring Strategy. Opportunities for integrated monitoring with other organisations are also being considered. The Council may initiate appropriate changes to this Plan as data becomes available.

### 3.3 METHODS OF IMPLEMENTATION

In the RPS, the Regional Council provided a description of the methods which could be used to implement objectives and policies. Included in that description were:

- Promotion
- Service Delivery
- Regulation
- Monitoring
- Economic Instruments

Promotion includes education and provision of information, and advocacy in terms of making representations and submissions to other management agencies through mechanisms such as lobbying and voluntary agreements. Service delivery covers the provision of goods and services, the collection and distribution of information, and monitoring. Regulation is the legal means used to control the effects of activities, and in the context of this Plan regulation is primarily by rules. Economic instruments are financial incentives or mechanisms for encouraging resource users to modify their behaviour, and include rates relief, bonds and tradable permits.

It is possible to combine one or more approaches to achieve the most appropriate outcome. As an example, a number of industries have produced relevant codes of practice, which outline the systems to be used and appropriate mitigation (including containment), prevention, emergency and monitoring procedures. It is not appropriate to make reference to all specific codes of practice in the rules section of the plan; however, as in some cases these codes may not address all relevant environmental effects of an activity, and may change as a result of independent industry review before the plan is reviewed. Furthermore, the RMA does not provide any specific “sign-off” for a particular industry-specific code of practice.

Nevertheless, by recognising industry codes of practice in conditions on resource consents, promotion and regulation can be combined to enable a more efficient and effective management process.

In general, the Regional Council prefers to use promotion where possible. There is some opportunity in this Regional Plan to use service delivery and monitoring. In addition, given the requirement above to take a precautionary approach, there is a necessity to use regulation. However, every attempt has been made to keep rules to a minimum and to focus them on controlling the effects of activities as is required under the RMA.

### 3.4 THE ROLE OF NATIONAL GUIDELINES

The Ministry for the Environment has produced a number of national guidelines which have been developed to help local authorities and other organisations address issues such as odour management (MfE, 1995), landfill design and management (MfE, 1992a), and cleaner production (MfE, 1994a).

These guidelines allow for a consistent approach to be taken to addressing odour management, the design, location and management of landfills, and the implementation of cleaner production practices, and as such the Regional Council will use these guidelines, and others which may be developed, where they are appropriate for the West Coast Region.

### 3.5 BEST PRACTICABLE OPTION

The RMA (Section 2) defines best practicable option (BPO) as:

*... “in relation to a discharge of a contaminant or an emission or noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to -*

- a) The nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and*
- b) The financial implications, and the effects on the environment, of that option when compared with other options; and*
- c) The current state of technical knowledge and the likelihood that the option can be successfully applied.”*

However, the BPO approach may only be adopted when the consent authority is satisfied that this is the *most efficient and effective* means of preventing or minimising any actual or potential adverse effect on the environment. This involves having regard to alternatives, including setting minimum standards on discharges, and consideration of the nature of the discharge and the receiving environment.

The usual means of avoiding adverse effects from discharges is to impose either effluent quality standards or receiving water standards. Conditions imposing standards are considered efficient and effective because they are certain and enforceable. The BPO is generally used as an alternative to setting discharge standards. It is most likely to be used where it is difficult, if not impossible, to set standards, or standards are not relevant or applicable. The BPO approach is flexible in that it allows for advances in technology and technical expertise and applies on a case-by-case basis.

However, this approach is far from certain, and the Regional Council would need to be satisfied that the option is efficient and effective from not only the applicant's point of view but also from the Council's and the community's perspective.

Consideration may be given to the use of the BPO in the resource consent process. This will be determined on a case-by-case basis. Where the BPO is adopted, it may include a cost to applicants for engaging suitably qualified technical experts on Council's behalf in assessing the resource consent application, in accordance with Section 36 of the RMA.

Until monitoring data demonstrates that the effects are minor, a precautionary approach will be used in combination with any BPO adopted. This may include shorter duration consents and specific requirements for review and monitoring of consents.

### **3.6 THE CONTROL OF DISCHARGES TO LAND FROM INDUSTRIAL OR TRADE PREMISES**

Section 15(1)(d) of the RMA allows the inclusion of a number of rules in this Plan to manage the effects of discharges to land from industrial or trade premises. The rules contained in this Plan do not make a distinction between discharges from industrial or trade premises, and other sources, but rather takes an effects based approach by permitting discharges with minor effects, no matter what the source.

However, in conjunction with this, and to reflect the requirements of the RMA, discharges from industrial or trade premises that are not specifically permitted by the rules in the Plan are considered as controlled or discretionary activities requiring resource consent.



## Chapter 4

# POUTINI NGAI TAHU VALUES

### **TAKU UKAIPO TE WHENUA. TAKU WHENUA TE UKAIPO**

**When a child is born the placenta is placed in the land.**

**From that time onward the land serves as the placenta.**

(MfE, n.d.)

#### **4.1 INTRODUCTION**

The purpose of the RMA is to promote sustainable management of natural and physical resources. In doing so, all persons exercising functions and powers under the Act, including the Regional Council, must:

*...recognise and provide for the following matters of national importance:*

*(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. (Section 6(e);*

*...have particular regard to:*

*(a) Kaitiakitanga. (Section 7(a);*

*...take into account the principles of the Treaty of Waitangi (Te Tiriti O Waitangi). (Section 8).*

All these are to be construed and applied together, in achieving the purpose of the Act. The Regional Council, in its planning and consents roles, must have full regard to them, as they are a means to achieving the overriding purpose of the Act contained in section 5. They may in some cases need to be weighed against other matters listed in sections 6 and 7.

The Regional Council recognises that, in carrying out its functions under the RMA, it has a statutory responsibility to protect the rangatiratanga of Poutini Ngai Tahu. In this context, the Regional Council also recognises that the Treaty of Waitangi (Te Tiriti O Waitangi) affords Poutini Ngai Tahu a status distinct from other interest groups or members of the public. The Regional Council recognises its obligation to consult with Poutini Ngai Tahu, and this is provided for in both the development and implementation of this Plan.

The Regional Council is committed to meeting these obligations under the RMA.

#### **4.2 PRINCIPLES OF THE TREATY OF WAITANGI**

As described above, under s8 of the RMA the Regional Council is required to take into account the principles of the Treaty of Waitangi.

The term “principles of the Treaty of Waitangi” originates from the Treaty of Waitangi Act 1975. The Court of Appeal has emphasised that it is the principles of the Treaty which are to be applied, not the literal words. The Privy Council characterised the Treaty principles as a dynamic force in that they reflect the intent of the Treaty as a whole and include, but are not confined to, the express terms of the Treaty. With the passage of time the principles which underlie the Treaty have become more important than its precise terms.

Although specific implementation of Treaty principles has yet to be enunciated through legislation it is generally accepted that the Treaty is the founding document of New Zealand and that because it creates a relationship akin to a partnership, there is a duty for the Treaty partners to act in good faith toward one another.

The judicial statements on which the principles are based have been gradually identified and with the passage of time the list continues to grow. The Regional Council’s responsibility is to take into account the principles of the Treaty as defined by the Courts and statute.

The Regional Council will:

(a) Endeavour to ensure that its understanding of the interpretation of the principles of the Treaty is consistent with the current interpretation of the courts.

(b) Take into account the following principles which have been identified by the courts:

- Act reasonably and in good faith;
- Make informed decisions;
- Consider whether active steps are needed to protect Maori interests;
- Not take actions which would prevent the redress of claims;
- Recognise that the government must be able to govern.

The Regional Council recognises that the exposition of Treaty Principles is not exhaustive.

**4.3 WASTE MANAGEMENT PRIORITIES OF POUTINI NGAI TAHU**

During the preparation of the Draft Plan representatives of the Regional Council met with Poutini Ngai Tahu at a hui held on the 12 April 1995. A number of areas of concern were identified in terms of resource management, and more specifically, waste management. Following is a discussion of the concerns of Poutini Ngai Tahu with respect to resource management.

*A hui was held with Poutini Ngai Tahu to address their concerns with respect to the discharge of contaminants to land*



- A fundamental concern of tangata whenua is the lack of resources, to ensure adequate input into plans. The vastness of the West Coast and the isolation of communities also pose problems. Until tangata whenua are resourced sufficiently, by central government, representation at hui and written submissions on plans will not be at the level they believe is sufficient to express their concerns.
- Kaumatua hold invaluable traditional knowledge that should be incorporated into the planning process.
- More assistance, such as reasonable access to qualified planning staff, should be provided to tangata whenua to prepare iwi management plans.
- The Crown needs to be lobbied regarding resource concerns of tangata whenua because this is a Treaty of Waitangi issue.
- Access to resources to sustain communities while sustaining the environment is important.

*Tangata  
Whenua lack  
the resources  
to ensure  
adequate input  
into Plans*

*More  
resources are  
required for  
the  
preparation of  
iwi  
management  
plans*

The following is a list of Poutini Ngai Tahu concerns about the discharge of contaminants to land:

- Maintenance of unmodified environments and areas of significance is important to Poutini Ngai Tahu.
- The restoration and/or enhancement of environments subject to, or under threat of, contamination is a priority to Poutini Ngai Tahu.
- Poutini Ngai Tahu want to be fully informed and consulted and to participate in decision making over the location and operation of landfills and other matters related to the discharge of contaminants to land.
- Poutini Ngai Tahu want the Regional Council to encourage territorial authorities to adopt a similar consultative approach.
- Waste reduction methods, such as recycling, reuse and biodegradable packaging, are supported by Poutini Ngai Tahu.
- The location and management of solid waste disposal facilities are of concern.
- Poutini Ngai Tahu want the protection of waterways and rivers as far as practicable, from source to mouth. They believe consultation is necessary prior to any modification of waterways.
- The customary relationship of Poutini Ngai Tahu with ancestral lands, sites, waters, waahi tapu and other taonga must be recognised and provided for.
- Regional Plans should not preclude the development of resource management or other plans by Poutini Ngai Tahu.
- Poutini Ngai Tahu recognise that the lack of resources and people may affect the establishment of full land disposal of human effluent. A priority of Poutini Ngai Tahu is to see alternatives developed for disposal of human effluent. They would like to see more commitment from central government

*Waste  
reduction  
methods are  
supported by  
Poutini Ngai  
Tahu*

*The location  
and  
management  
of solid waste  
disposal  
facilities are of  
concern*

- to investigating alternatives for the disposal of human effluent.
- Environmentally and culturally acceptable waste management alternatives are available which should be further investigated.
  - Poutini Ngai Tahu would like to see a commitment by the Regional Council to monitoring the environmental effects of discharges of contaminants to land.
  - Poutini Ngai Tahu would like to see the establishment of a database for environmental monitoring.
  - Poutini Ngai Tahu would like to see a commitment by the Regional Council to the use of the prosecution provisions under the RMA.
  - Poutini Ngai Tahu are concerned that no matter how good the commitment to or theory of the design and operation of landfills, the likelihood of contamination of surrounding areas remains high.
  - Poutini Ngai Tahu believe that environmental values are priceless, and cannot be measured in terms of money.
  - Poutini Ngai Tahu expressed concern over the siting of existing landfills, and the possible adverse effects on waterways.
  - Education about waste management and Maori views in relation to waste management is required.
  - Poutini Ngai Tahu would like to see the issue of disposal of human effluent from mobile sources addressed in order to protect the West Coast environment.

*Poutini Ngai Tahu would like to see a commitment by the Regional Council to the use of prosecution provisions under the RMA*

*Poutini Ngai Tahu believe that environmental values are priceless and cannot be measured in terms of money*

From these concerns about the discharge of contaminants to land, a number of priority areas were identified. These are outlined below.

- The protection of waterways from source to mouth, from adverse effects.**
- The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.**
- Maintenance of pristine environments.**
- The restoration of degraded environments.**
- Education on Maori values in respect to waste management.**
- The incorporation of Maori views into Regional Plans, such as the Regional Plan for Discharges to Land.**

*The maintenance of pristine environments is a matter of concern, as is the restoration of degraded environments.*

The Regional Council's understanding of these concerns and priorities are incorporated into the objectives, policies, methods and rules for each of the issues, addressed in Chapters 5.0 - 10.0.

#### 4.4 CONSULTATION

Through consultation, Poutini Ngai Tahu will retain an active relationship with the Regional Council and resource users. Consultation occurs in both resource consent and planning processes. Runanga are provided with schedules of all non-notified resource consent applications and full copies of all notified applications received by Council, and are given the opportunity to comment. Together with representation on the Council committees, this enables tangata whenua to have an early and active input into resource management.

The Ngai Tahu Act 1996 states that within the Tai Poutini (*West Coast*) Te Runaka O Kati Waewae and Te Runanga O Te Koeti Turanga (*Te Runanga O Makaawhio*) are the two papatipu marae-based runanga which have manawhenua over Tai Poutini from Piopiotahi (*Milford Sound*) in the south, to Kahurangi in the north and into the middle of the Southern Alps.

Council recognise that there are other people and groups who have interests in Tai Poutini, who are not affiliated to the two runanga. The Ngai Tahu Act does not preclude Council from dialogue with these people.

Poutini Ngai Tahu may initiate consultation at any time through the Regional Council.

#### THE VALUE PLACED ON THE ENVIRONMENT

**He kura tangata e kore e rokohanga. He kura whenua ka rokohanga Ina waiho ma te whakama e patu.**

**Land is our basic treasure. It has spiritual and practical values which will outlast man's brief stay.**

(Centre for Advanced Engineering, 1992)



## Chapter 5

# SOLID CONTAMINANTS

### 5.1 BACKGROUND

In New Zealand, the use of land as a repository for solid wastes is common practice (such as landfills, dumps, refuse (Environment Waikato, 1994a)). Such use can cause the pollution of groundwater and surface water from leachate, and reduction in air quality due to odour, smoke, dust and the release of methane, which has been identified as a greenhouse gas. Poorly sited landfills can also have an adverse effect on social, cultural and amenity values. Effects on these values include potential hazards or health risks posed by discharges such as toxic leachate and methane gas, and the siting of landfills adjacent to incompatible activities and the effects on amenities of an area. Of further concern is the disposal of hazardous substances at such facilities. This issue is discussed in Chapter 8.0.

Acknowledgement of the positive aspects of the disposal of solid waste is also important. The provisions of landfills on the West Coast, in both the main centres and in small rural communities provides a controlled method of disposal of solid waste. The effects of this include removal of waste from people's properties (providing a healthier living environment), dissuading people from disposing of their waste in illegal dumps, which can cause significant environmental problems, and the provision of reclaimed areas for community facilities (in some cases).

Under the Local Government Amendment Act (No 4) 1996, territorial authorities are responsible for the management of waste in their districts. This Act imposes the duty on them to encourage efficient waste management, and requires the production of a waste management plan that provides for collection, reduction, reuse, recycling, recovery, treatment, and disposal of waste in the district. The Regional Council is concerned with the disposal of these contaminants to land and any resulting adverse effects on the receiving environment.

Virtually all solid waste disposal in the region is by way of landfill. The region is characterised by larger urban landfills at the three major towns of Westport, Hokitika and Greymouth, with numerous small rural landfills serving the smaller towns and rural communities. In April 1995 the Regional Council received resource consent applications for 29 landfills operated by territorial authorities in the Region. There are also a small number of known informal 'tips'. Per head of population the region has more landfills than any other region in New Zealand. The high number of sites is a direct result of the widely dispersed population of the region. Industrial and commercial solid wastes and agricultural wastes are often disposed of on the premises or in private dumps. It is important that these practices do not result in the contamination of land, air or water.

The Regional Solid Waste Management Strategy, released in March 1992, noted that all three major urban landfills then being operated were close to full, and poorly located. The Act enables the setting of environmental bottom lines, and in recognition of this greater care can be taken to ensure that new landfill sites are such that adverse effects including contamination of surface water and groundwater are able to be avoided, remedied or mitigated. New landfills developed in the region will achieve these higher environmental standards. These, amongst other options, also provide an opportunity for the development of a system, including facilities, for the safe management and disposal of hazardous wastes (West Coast Regional Council, 1996a). At the time of the release of the Regional Solid Waste Management Strategy, few of the landfills officially accepted hazardous and special wastes, although hazardous wastes were, and undoubtedly continue to be, disposed of both in those landfills and by other illicit means. Discharges to land of hazardous wastes are covered in Chapter 8.

The main concerns for the West Coast Region in terms of solid contaminants being discharged to land are:

1. The quantities of waste being produced
2. The adverse effects of the disposal of solid wastes to land
3. Illegal dumping

#### **Quantities Of Solid Wastes Being Produced**

The need to minimise waste is identified as an issue of regional importance in the Regional Policy Statement. While not a function of the Regional Council, the implementation of waste minimisation measures reduces the adverse effects of waste disposal on the environment, and as such is promoted and supported by the Regional Council.

The quantity of solid waste being generated and disposed of in the Region has to be managed because of the adverse effects of disposal on the environment, such as landfill gas discharge and odour problems, and the contamination of water by leachate from landfills. An additional problem with the quantities of waste being produced is the decreased operative life of landfills.

The Government's waste management policy, implemented through territorial authority responsibilities under the Local Government Act, includes the implementation of the internationally recognised *hierarchy* of reduction, reuse, recycling, recovery, and treatment, prior to disposal. The other key element of the waste management policy is that New Zealand's waste generators should meet the costs of managing the waste they produce.

It is important that the concepts discussed in the waste management policy are promoted on the West Coast, with the over-arching priority being to reduce the levels and toxicity of the wastes produced in the Region. This hierarchy is based on waste minimisation, the concept which refers to any

methodology which can be used to minimise the production and toxicity of waste by modifying existing processes and behaviours. The key elements of waste minimisation are:

- ❑ Avoid - avoiding the generation of wastes through Cleaner Production<sup>3</sup> and selective product purchase. Cleaner production means using energy and resources efficiently, avoiding or reducing the amount of waste produced, producing environmentally sound products and services, and fewer costs and higher profits (Ministry for the Environment, 1994a). The Ministry for the Environment (op.cit.) has released a document entitled 'Cleaner Production Guidelines', which provides tools for local authorities to implement cleaner production;
- ❑ Reduce - where avoidance is not possible, using Cleaner Production and other methods to reduce the generation of wastes as much as possible. This can be achieved by selective purchasing practices, and also by the composting of organic wastes;
- ❑ Reuse - involves using a product repeatedly without changing its form. This reuse can involve using it for the same purpose, such as glass milk bottles, or using it for a different purpose, such as using bread bags for freezer storage;
- ❑ Recycle - involves recovering materials from the waste stream and reprocessing them to produce new products;
- ❑ Recover - involves the utilisation of waste as a resource through the transformation of the waste into useable product or the recovery of energy. Resource recovery could include:
  - ❑ Composting of organic waste;
  - ❑ Use of landfill gas for energy;
  - ❑ Incineration and gasification of municipal and/or organic waste for energy;
  - ❑ Collecting waste oil for use as a supplementary fuel (Hawkes Bay Regional Council, 1994);
- ❑ Residue Disposal - involves the disposal of wastes which could not be reused, recycled or recovered, and is the last resort.

Another important part of waste minimisation is *the availability of information* about the waste stream and the generators of waste and waste hazardous substances, to enable the selection of appropriate targets and strategies. In the West Coast region an investigation was carried out during the preparation of the Regional Solid Waste Management Strategy, but this was limited to identifying how much waste was produced by industry and the domestic sector. There has been no detailed analysis of the components of the waste stream.

One technique which can be used to implement waste prevention and minimisation practices is the undertaking of Waste Audits. Waste audits involve assembling information on how waste materials actually enter the waste stream, and determining the approximate amounts of material that are available.

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<sup>3</sup> Cleaner Production is the conceptual and procedural approach to production that demands that all phases of the lifecycle of a product or of a process should be assessed, with the objective of prevention or minimisation of short and long-term risks to humans and to the environment.

This process involves studying all waste producing processes within a facility (Hawkes Bay Regional Council, 1994). Another process is the Waste Analysis Protocol. This was developed by the Ministry for the Environment in response to the lack of good quality information on the amount and nature of solid wastes disposed of in New Zealand. It is intended for use by industry and other organisations.

### **The Adverse Effects of the Disposal of Solid Wastes to Land**

If solid waste disposal facilities on the West Coast are not lined and do not provide for the collection of leachate, rain, surface water, or even water in underground aquifers can enter the refuse bed and combine with chemicals or the products of decomposition of the refuse to form a leachate. The leachate can soak into surrounding soils and may enter and contaminate underground aquifers or nearby waterbodies. Disposal of solid wastes can, therefore, pose a major threat to groundwater quality (Centre for Advanced Engineering, 1992) as well as having the potential to adversely affect air quality, and landscape values. Given the high rainfall, and the generally high water tables in the Region, leaching and runoff may be of particular concern. In order to assess the adverse effects, monitoring is important.

In the near future, new landfills may need to be developed in the Region. In order to avoid, remedy or mitigate the adverse effects of these new disposal facilities, it is necessary to ensure that these sites adhere to certain standards. A number of reports and guidelines have been prepared which provide standards that could apply to the West Coast, primarily by the Centre for Advanced Engineering (1992), and the Ministry for the Environment (1992a). It is important that guidelines are adopted that are appropriate for the West Coast.

It is also important that guidelines are developed for other solid waste disposal facilities in the Region, such as stockpiles of waste materials at industrial premises. Other discharges to land include stockpiling of solid materials such as gravel or coal, and biodegradable wastes such as sawdust. If appropriately managed, these will have minimal adverse effects.

### **Illegal Dumping**

Illegal dumping (disposal of solid wastes at locations not specifically intended for waste, nor having the appropriate resource consents) is a particular problem in the Region. Ninety two percent of the Region is in Crown ownership and much of that land is in exotic or indigenous forest, or otherwise undeveloped. Such areas are sufficiently close to urban areas for people to dump waste illegally without risk of being observed or caught. Once such dumps are started, they provide an increased likelihood that other people will use them.

Public submissions to the Regional Council, complaints, and accidental discoveries of dump sites by staff in the course of their work indicate that illegal dumping continues to be a matter of concern.



Illegal dumping is a difficult problem, but one which must be addressed for environmental, cultural and economic reasons (West Coast Regional Council, 1992). In conjunction with addressing the problem of illegal dumping it is important to ensure that there are adequate legal dumps within a reasonable distance of rural communities. This will provide an alternative to illegal dumping.

Because of the uncontrolled nature of illegal private dumps in the Region, the potential for adverse effects is high, particularly with respect to water quality, aesthetic and amenity values. The disposal of hazardous substances at these illegal dump sites and the possible adverse effects on water quality and soil contamination is of concern to the Regional Council, as well as the lack of information on the quantities and types of wastes entering these dumps, and the location of the dumps themselves.

## 5.2 ISSUES

**5.2.1 The adverse effects of the discharge of solid contaminants to land on water, soil quality, social, cultural and amenity values, and public health.**

**5.2.2 The quantities of solid waste produced in the region, and the subsequent adverse effects of disposal on the environment.**

**5.2.3 Illegal dumping in the region and its adverse effects on the environment.**

## 5.3 OBJECTIVE

**5.3.1 To ensure that the adverse effects from the discharge of solid contaminants into or onto land, on water and soil quality, social, cultural and amenity values, and human health are avoided, remedied or mitigated.**

## 5.4 POLICIES

**5.4.1 To encourage waste minimisation practices in the West Coast Region.**

*Methods 5.5.1,  
5.5.2, 5.5.3,  
5.5.4*

### **Explanation**

*This policy reflects the direction taken in the RPS, which promotes the reduction of the amount of waste that requires disposal. Waste reduction, including waste audits, cleaner production and implementation of the waste management hierarchy, are useful in terms of identifying areas where resources are being wasted or not fully utilised, and looking for solutions in terms of avoidance, reduction, reuse, recycling and recovery. Adopting this policy will ensure that the approach of the Regional Council is consistent with district, national and international directions.*

**5.4.2 To ensure that solid waste disposal facilities are sited, designed, constructed and managed to avoid, remedy or mitigate any adverse effects on the environment.**

*Methods 5.5.5, 5.5.8, 5.5.9, 5.5.10, 5.5.11, 5.5.12, 5.5.13*

**Explanation**

*This policy encompasses all solid waste disposal facilities, including landfills, and facilities at industrial and trade premises, both existing and future. If not properly managed, solid waste disposal facilities may generate harmful environmental effects such as contamination of the site on which the activity is carried out, or contamination of groundwater and surface water. This policy reflects the need to ensure that any adverse effects can be avoided, remedied or mitigated.*

*With regard to community landfills, avoiding, remedying or mitigating adverse environmental effects of discharges can potentially have other effects such as increased costs to communities. Such effects are given consideration under Section 5 of the Resource Management Act 1991.*

**5.4.3 To use the enforcement provisions under the RMA where adverse effects associated with discharges from any operational solid waste disposal facility are not avoided, remedied or mitigated.**

*Methods 5.5.5, 5.5.6, 5.5.7, 5.5.10, 5.5.11, 5.5.12, 5.5.13*

**Explanation**

*It is possible that some of the existing waste disposal facilities in the Region are having adverse environmental effects. If the Regional Council demonstrates that the adverse effects of a waste disposal facility are not being avoided, remedied or mitigated, the Council will utilise the enforcement provisions of the RMA. Thus in situations where the conditions of resource consents are being breached, and where unauthorised discharges to land are occurring, abatement action may be taken. Alternatively, applications may be made to the Environment Court for enforcement orders where breaches of a consent or the Plan are occurring. Other options available to Council include the non-renewal of resource consent, or limiting the duration of the consent.*

*Operational facilities are currently operating, legally established waste disposal sites for private or public use, and do not include illegal or "orphan" sites.*

**5.4.4 Promote the provision of appropriately sited and constructed waste disposal facilities to assist in the elimination of illegal waste disposal sites.**

*Methods 5.5.10, 5.5.11, 5.5.12, 5.5.13, 5.5.14, 5.5.15, 5.5.16, 5.5.17*

**Explanation**

*This policy recognises the potential for adverse environmental effects as a result of illegal waste disposal. The most effective way of eliminating the illegal disposal of waste is by providing legal waste disposal facilities in locations that are easy for people to use.*

## 5.5 METHODS

### SEE REGIONAL RULES - CHAPTER 10.0

#### Rule 1

#### Stockpiling

#### Rule 2

#### Stockpiling of Roadworks Materials

#### Rule 3

#### Solid Waste Disposal

#### Rule 4

#### Composting

#### Rule 17

#### Stockpiling of Solid Materials

#### Rule 18

#### Solid Waste Disposal - Landfills

#### Rule 19

#### Composting Operations

#### Rule 28

#### General Discretionary Activities

#### 5.5.1

In conjunction with territorial authorities, the Council will promote waste reduction, reuse and recycling, to the public.

*Policy 5.4.1*

#### 5.5.2

The Council will support the promotion of the composting of organic material, while recognising the need to avoid, remedy or mitigate any adverse effects from composting.

*Policy 5.4.1*

#### 5.5.3

The Council will investigate the benefits and costs of using economic instruments, such as bonds, and awards for Cleaner Production.

*Policy 5.4.1*

#### 5.5.4

The Council will encourage the establishment and development of recycling facilities in the Region.

*Policy 5.4.1*

#### 5.5.5

The Council will establish monitoring procedures to monitor discharges to land, air and water from new and existing waste disposal facilities in the Region.

*Policies 5.4.2  
& 5.4.3*

#### 5.5.6

The Council will work with territorial authorities on identification of public operational waste disposal facilities where the discharge of contaminants is having significant adverse environmental effects which cannot be avoided, remedied or mitigated, and develop a programme for closing down the facility.

*Policy 5.4.3*

**5.5.7**

The Council will use enforcement procedures for waste disposal facilities, which are breaching the conditions of resource consents, where liaison with consent holders is not successful.

*Policy 5.4.3*

**5.5.8**

The Council will be guided by the relevant sections of the “Landfill Guidelines” (Ministry for the Environment, November 1992) for all new refuse disposal facilities, and other national guidelines that the Council considers appropriate for the Region.

*Policy 5.4.2*

**5.5.9**

The Council will prepare and distribute promotional material containing guidelines for the siting and management of solid waste disposal facilities, other than landfills, in the Region, including farm tips, waste material stock piles and offal pits.

*Policy 5.4.2*

**5.5.10**

The Council will, in conjunction with the papatipu runanga, identify the tangata whenua who have an ancestral relationship with sites for disposal of solid contaminants and through this process have regard to kaitiakitanga.

*Policies 5.4.2-5.4.4*

**5.5.11**

Once the Council has identified the relevant tangata whenua for a site, consultation will be undertaken to address their concerns.

*Policies 5.4.2-5.4.4*

**5.5.12**

The Council will ensure that the principles of the Treaty of Waitangi are taken into account in any decisions.

*Policies 5.4.2-5.4.4*

**5.5.13**

The Council will increase the bi-cultural awareness of the Council and its staff through its committee meetings and by way of regular training sessions facilitated by the iwi liaison officer, or other such methods as appropriate.

*Policies 5.4.2-5.4.4*

**5.5.14**

The Council will educate residents on the problems associated with the illegal dumping of solid wastes.

*Policy 5.4.4*

**5.5.15**

Upon identification of an illegal dump, and in consultation with the relevant territorial authority, the Council will require the polluter/owner/occupier (where they can be identified) to implement management, and where appropriate, rehabilitation procedures. In conjunction with any management/rehabilitation procedures the local options for legal waste disposal facilities should also be investigated. Where those responsible for the dump cannot be identified, the site will be treated as an “orphan” contaminated site (See Chapter 9).

*Policy 5.4.4  
Chapter 9*

**5.5.16**

The Council will use the enforcement provisions of the RMA for those who discharge contaminants to land illegally.

*Policy 5.4.4*

**5.5.17**

The Council will advocate to territorial authorities the need to ensure that, where practicable, the public have adequate access to legal waste disposal facilities.

*Policy 5.4.4*

**5.5.18**

The Council will ensure that all regional plans are consistent in order to demonstrate a commitment to integrated planning.

**PRINCIPAL REASONS**

The role of the Regional Council under Section 30 of the RMA is the control of the discharge of contaminants to land. Waste management is a function of territorial authorities. However, the concept of waste minimisation is a way of decreasing the amount of contaminants that need to be discharged, and for this reason it is appropriate for the Regional Council to be encouraging the concept and adoption of waste minimisation. Widespread community support is essential if waste minimisation initiatives are to succeed. The policies and methods adopted are aimed at allowing integration between the roles of the Regional and District Councils (including integration in management plans, such as this Plan controlling discharges to land and district waste management plans).

Economic instruments have been used to support and promote good practice and to encourage other industries to implement similar schemes. The use of other economic instruments such as tradable discharge permits may be considered at a later date.

The methods relating to identification of the ancestral relationship of tangata whenua with sites and then subsequent consultation have been developed to address the requirements of sections 6(e), 7(a) and 8 of the RMA. Poutini Ngai Tahu have identified the process for addressing issues of concern to them in the above methods. This process relates to both resource consent applications (through notifying papatipu runanga of all consent applications) and to the implementation of alternative methods for achieving policies.

A regulatory approach has been adopted to deal with the control of discharges from solid waste disposal facilities, in line with the functions of the Regional Council under the RMA. This regulatory approach applies to both closed and operating waste disposal facilities.

*See Regional  
Rules -  
Chapter 10.0*

## 5.6 ANTICIPATED ENVIRONMENTAL RESULTS

### 5.6.1

Better knowledge and understanding of the impacts of solid waste management and disposal.

### 5.6.2

A reduction of any potential or actual adverse environmental or cultural impacts from the improved disposal of solid wastes.

### 5.6.3

An improved awareness of the issues associated with the disposal of solid wastes, such as possible water contamination from landfills.

### 5.6.4

A reduction in the adverse effects on amenity values due to improvements in solid waste disposal.

### 5.6.5

Effective follow-up measures when a waste disposal facility has been shown to be adversely affecting the environment.

### 5.6.6

An improved knowledge of the effects of landfills on the West Coast.

## Chapter 6

# LIQUID CONTAMINANTS

### 6.1 BACKGROUND

This Chapter deals with liquid contaminants that are not hazardous, such as sewage and stormwater. Discharges to land of hazardous substances such as chemical wastes are dealt with in Chapter 8.0, Hazardous Substances.

Discharges of liquid contaminants to land can cause adverse effects if they are not properly managed. In particular, discharges can contaminate soil and enter groundwater, surface water and coastal water. This can have an adverse effect on water quality and the health of plants, animals, humans and ecosystems. These adverse effects arise from:

- ❑ Lack of or inappropriately designed, installed or maintained on-site and reticulated domestic effluent treatment systems;
- ❑ Overloaded sewage treatment systems; and
- ❑ The presence of industrial wastes in sewer systems and stormwater systems. These can contaminate the receiving environment, and may also damage biological treatment systems.

The disposal of human effluent from settlements and towns in the Region is primarily by reticulated sewerage systems. In rural areas disposal is chiefly via on-site domestic effluent treatment systems, in particular septic tanks. The treatment and disposal of human effluent by on-site effluent disposal systems results in a final discharge to land, with sewage from reticulated systems being discharged to water. There is increasing pressure in the Region to upgrade the reticulated sewerage systems, in particular the final discharge into water. An option is for sewage from reticulated sewerage systems to be treated and disposed of onto land rather than into water.

Another major issue of concern to the Region with regard to the discharge of liquid contaminants to land is the disposal of human sewage from mobile sources, such as campervans. The terrestrial disposal of toilet waste from vehicles at other than approved disposal sites is considered to be unacceptable (chemicals contained in toilet wastes can disrupt the working of normal effluent treatment systems, therefore, approved sites may need to include dedicated treatment systems). Adverse effects can include those on aquatic life and ecological values, health hazards (such as contamination by *Giardia* sp.), aesthetic degradation, and impacts upon mahinga kai resources and the relationship of Maori to their ancestral land, water and other taonga.

The lack of reticulated sewerage systems on the West Coast means that industries may need to have their own effluent treatment and disposal

systems. The discharge of liquid contaminants from these private systems to land is another issue of concern. Where reticulated sewerage systems with land-based treatment or disposal are available it is important that untreated or inappropriately treated industrial waste is not discharged straight from sewers.

The main areas of concern for the West Coast Region in terms of liquid contaminants being discharged to land are:

1. The disposal of sewage from fixed sources
2. The disposal of sewage from mobile sources
3. The disposal of liquid contaminants other than sewage

#### **The Disposal to Land of Sewage from Fixed Sources**

Section 30(1)(f) of the Act gives the Regional Council control of the discharge of contaminants, such as sewage, into or onto land. The Council is therefore concerned, among other things, with any adverse effects of discharges of sewage from fixed sources such as on-site treatment and disposal systems on the receiving environment, including the potential for contamination of soil and groundwater.

In relation to on-site treatment and disposal of sewage, territorial authorities are also given functions under the Building Act 1991 that closely relate to the functions of the Regional Council. Under the Building Act, septic tanks and other facilities connected to a building utility system are deemed to form part of that building utility system, and therefore, require a building consent from the local territorial authority. The Health Act 1956 also gives territorial authorities powers to promote and conserve public health and deal with nuisances where on-site systems or discharges may be offensive or injurious to health.

Given these closely related functions, the Regional Council and the territorial authorities will need to work closely together to co-ordinate management of discharges to land from on-site sewage treatment and disposal systems. Liaison and information sharing between the authorities has been, and continues to be an essential part of this management. There is also potential for the transfer of this function from the Regional Council to territorial authorities. This possibility may be an option for management of on-site treatment and disposal systems in a more integrated way.

Options for the management of sewage from reticulated community schemes may include land-based forms of treatment and disposal. Such discharges to land are covered by the provisions of this Plan.

Although there is increasing pressure for land-based sewage treatment and disposal in the Region, reticulated sewerage systems which discharge effluent to land have their own set of environmental problems. The inclusion of industrial and trade wastes in sewer systems can potentially



contaminate the environment into which they are discharged (e.g. adsorption of heavy metals to soil particles). They may also damage or inhibit the functioning of biological treatment systems. In addition the limitations of the land to which the effluent is discharged needs to be considered. Poorly drained soils, high water tables, steep terrain, high rainfall, and humid conditions can all limit the effectiveness of land treatment. There is a need to ensure that the potential adverse effects (particularly on groundwater and surface water quality) of reticulated land-based sewage treatment and disposal systems are adequately managed.

On-site effluent disposal systems also have problems associated with their operation, including:

- ❑ Poorly drained underlying soils, especially clays, becoming saturated (perched water tables);
- ❑ The high water table in parts of the Region causing problems with soakage;
- ❑ System overload from the increased use of household appliances; and
- ❑ Lack of septic tank maintenance and lack of guidelines on system management.

Inappropriate system design, bad installation practice and poor or no system maintenance all contribute to increased levels of nutrients and pathogens in groundwater, surface water and coastal waters. Elevated pathogen levels increase the chances of disease transmission, particularly skin and gut infections.

However, given the rural and dispersed nature of the Region's population, and the lack of reticulated systems (mainly in rural areas), on-site effluent treatment is often the only option. Therefore, it will be necessary to improve the effectiveness of on-site systems as the development of large sewage schemes is not practical given the dispersed nature of the population of the region and the small sizes of communities. Advances in technology mean that more effective systems can be developed and utilised.

There is also the problem of disposing of septic tank sludge (septage). If septage disposal facilities are improperly sited and managed they can lead to contamination of soil and water resources. The Regional Council needs to ensure that septage is being disposed of correctly. This will be done through the resource consent process.

### **The Disposal to Land of Sewage from Mobile Sources**

Campervans and caravans are two sources of such waste. Many campervans now have portable toilets or containment facilities which can be emptied at specially designated and designed sites. Roadside dumping of campervan and caravan waste and non-use of toilet facilities is a problem in the Region, especially around rest areas. Rest areas that have inadequate toilet facilities are also being used as overnight camping sites.

With increasing recreation and tourist demands on the West Coast, a significant potential has arisen for contamination of rivers and streams used for water supply by campers and trampers. Such contamination can be caused by inappropriate methods of sewage disposal (e.g. by recreationalists). The risks are high because there is little opportunity for reliable barriers such as water treatment, including disinfection (Centre for Advanced Engineering, 1992).

### **The Disposal to Land of Liquid Contaminants from Other Sources**

The types of liquid wastes that may be discharged to land from industrial and trade premises include unprocessed milk, stormwater, and discharges from mining and exploration. These wastes can have adverse effects if they are discharged to land. They may contain hazardous substances, pathogens, or elevated organic loadings, and therefore, may require adequate treatment prior to disposal. In particular, land-based treatment and disposal systems need to be appropriate to the site and to the type of waste to be disposed of. Liquid wastes from industrial and trade premises that are treated and discharged to surface water will be dealt with in a water management plan.

## **6.2 ISSUES**

**6.2.1 The adverse effects on soil, water quality and human health, of the disposal of sewage from fixed sources to land.**

**6.2.2 The adverse effects on soil, water quality and human health, of the disposal of sewage from mobile sources to land.**

**6.2.3 The adverse effects on soil, water quality and human health, of the disposal of other liquid contaminants to land.**

## **6.3 OBJECTIVE**

**6.3.1 To ensure that the adverse effects from the discharge of liquid contaminants into or onto land, on water and soil quality, social, cultural and amenity values, and human health are avoided, remedied or mitigated.**

## **6.4 POLICIES**

**6.4.1 To ensure that the discharge of liquid contaminants into or onto land is of a nature or at a rate that does not exceed the ability of the land to assimilate the contaminant, and does not result in soil contamination.**

*Methods*  
6.5.1-6.5.3,  
6.5.6

**Explanation**

*The discharge of contaminants such as sewage to land relies upon the soil system to assimilate the contaminants. Where the soil cannot assimilate the contaminant, the contaminant is likely to reach water and may also have adverse effects on human health, cultural or amenity values. Soil contamination may occur due to the presence of certain substances in the discharge. Effects of soil contamination include, for example, loss of capacity for pasture, crop or vegetation growth, rendering crops or pasture unsuitable for human or stock consumption, or loss of microbial activity and natural biodiversity in soil. The policy is adopted to require that discharges to land do not have adverse effects greater than discharge to other receiving environments. This is particularly relevant given the nature of the region and its high rainfall.*

**6.4.2 To require monitoring of, and where necessary improvements to, disposal systems to ensure that the adverse environmental effects are avoided, remedied or mitigated.**

Method 6.5.1,  
6.5.2, 6.5.3,  
6.5.4, 6.5.16,  
6.5.17, 6.5.18,  
6.5.19

**Explanation**

*There are a number of problems in the Region associated with on-site effluent treatment and disposal systems, including the contamination of groundwater and surface water. Many of these are associated with septic tanks. It is important that the performance of these systems is improved where these adverse effects are occurring.*

*Collection and analysis of adequate environmental information is an important part of applying controls for management of the land disposal of liquid contaminants, and improving the performance of on-site effluent treatment and disposal systems. This monitoring is also important in order to determine breaches of resource consent conditions, and the occurrence of unauthorised discharges of liquid contaminants to land. The Regional Monitoring Strategy, the Surface Water Quality Monitoring Programme, and the annual planning process provide the framework and means for specific types of monitoring. Other monitoring programmes may include investigations of soil and groundwater quality.*

**6.4.3 To use the enforcement provisions under the RMA where necessary to ensure any adverse effects associated with system failure of on-site effluent treatment and disposal systems are avoided, remedied or mitigated.**

Method 6.5.4,  
6.5.5, 6.5.7,  
6.5.16, 6.5.17,  
6.5.18, 6.5.19

**Explanation**

*In situations where the conditions of resource consents are being breached, and where unauthorised discharges to land are occurring, it is important that the enforcement provisions under the RMA are considered. Liaison with the discharger, education, advice or warnings may be sufficient to achieve compliance and mitigate effects. Use of provisions such as enforcement orders, abatement notices or prosecutions will be considered where liaison with the discharger is unsuccessful in mitigating discharges with potentially serious adverse environmental effects.*

*The use of these provisions should discourage future breaches of consent conditions and unauthorised discharges.*

**6.4.4 To avoid health hazards and cultural, ecological, and aesthetic degradation of the environment from the discharge to land of sewage from mobile sources.**

*Method  
6.5.8 – 6.5.19*

**Explanation**

*The disposal of sewage from campervans, trampers etc may be causing adverse environmental effects on water quality and amenity values on the West Coast. Given the perceived “clean green” image of the West Coast it is important that this effluent is disposed of responsibly.*

**6.5 METHODS**

**SEE REGIONAL RULES - CHAPTER 10.0**

**Rule 5**

**Discharge of Stormwater**

**Rule 6**

**On-Site Discharge of Sewage Effluent**

**Rule 7**

**Pit Toilets**

**Rule 16**

**Discharge of Stormwater**

**Rule 20**

**Discharge of Sewage Effluent To Land**

**Rule 21**

**Discharge of Septage**

**Rule 28**

**General Discretionary Activities**

**6.5.1**

The Council will provide information on suitable management practices for the treatment and disposal of liquid contaminants to land.

*Policies 6.4.1,  
6.4.2*

**6.5.2**

The Council will maintain a soil and water database that will be available to assist when assessment of the suitability of sites for land disposal of sewage is required.

*Policies 6.4.1,  
6.4.2*

**6.5.3**

The Council, in consultation with territorial authorities and local health authorities, will develop a programme for educating home owners and industry (where appropriate) about disposal of liquid contaminants and the management of discharges from on-site domestic effluent treatment and disposal systems.

*Policies 6.4.1,  
6.4.2*

**6.5.4**

The Council will monitor the quality of surface water, groundwater and coastal water throughout the Region, in areas where the discharge of effluent to land may be affecting water quality.

*Policies 6.4.2,  
6.4.3*

**6.5.5**

The Council will use the enforcement procedures of the RMA (where necessary) in conjunction with a region-wide education system to ensure that problems associated with system failure of on-site domestic effluent treatment and disposal systems are adequately addressed.

*Policy 6.4.3*

**6.5.6**

The Council will endeavour to keep up to date with advances in technology, appropriate to the Region.

*Policy 6.4.1*

**6.5.7**

The Council will consider use of enforcement procedures under the RMA to require the rehabilitation of the environment following an unauthorised discharge.

*Policy 6.4.3*

**6.5.8**

In conjunction with other relevant agencies, including the Crown, campervan operators, and territorial authorities, the Council will promote the importance of disposal of human wastes from mobile sources at approved sites only.

*Policy 6.4.4*

**6.5.9**

The Council will advocate to central government the preparation of national guidelines for disposal of septage, campervan and caravan wastes.

*Policy 6.4.4*

**6.5.10**

The Council will provide information on the location of approved disposal sites for mobile sources of sewage in the Region, using information brochures, road signs and the use of the dump site symbol.

*Policy 6.4.4*

**6.5.11**

The Council will promote an increase in the number of official dump stations on the West Coast.

*Policy 6.4.4*

**6.5.12**

The Council will promote adherence to the New Zealand Environmental Care Code, prepared by the Department of Conservation, especially by people such as trampers, who do not have access to normal toilet facilities whilst pursuing outdoor activities.

*Policy 6.4.4*

**6.5.13**

The Council will encourage further development of public toilet facilities at strategic locations along tourist routes through liaison with the Department of Conservation, Transit New Zealand, territorial authorities, and the tourism industry.

*Policy 6.4.4*

**6.5.14**

The Council will work with territorial authorities to ensure that approved waste disposal facilities are provided at all new motor camps and caravan parks.

*Policy 6.4.4*

**6.5.15**

The Council will encourage erection of “No Camping” signs at roadside rest areas, along with signs indicating the next toilet/waste disposal facility, by controlling authorities.

*Policy 6.4.4*

**6.5.16**

The Council will in conjunction with the papatipu runanga identify the tangata whenua who have an ancestral relationship with sites for disposal of liquid contaminants and through this process have regard to kaitiakitanga.

*Policies 6.4.2-6.4.4*

**6.5.17**

Once the Council has identified the relevant tangata whenua for a site, consultation will be undertaken to address their concerns.

*Policies 6.4.2-6.4.4*

**6.5.18**

The Council will ensure that the principles of the Treaty of Waitangi are taken into account in any decisions.

*Policies 6.4.2-6.4.4*

**6.5.19**

The Council will increase the bi-cultural awareness of the Council and its staff through its committee meetings and by way of regular training sessions facilitated by the iwi liaison officer, or other such methods as appropriate.

*Policies 6.4.2-6.4.4*

**6.5.20**

The Council will implement integrated planning by complementing the provisions of this plan with appropriate provisions in other regional plans.

**6.5.21**

The Council will consult with the territorial authorities about involving them in the administration of on-site discharges of sewage to land. For the purpose of efficiency, consideration will be given to the transfer of functions to territorial authorities.

**PRINCIPAL REASONS**

The problems with on-site effluent treatment and disposal systems are often associated with inappropriate management of the systems. Therefore, education and facilitation are seen as the most appropriate methods to deal with this problem. In this Plan, education and facilitation have been accompanied with regulation to ensure that potential or actual adverse effects associated with new and existing systems are avoided, remedied or mitigated given the unique nature of the West Coast Region.

*See Regional Rules - Chapter 10.0*

As existing water permits (issued under the Water and Soil Conservation Act 1967) for discharges of sewage into waterways expire by the 1st October 2001, it is important that provisions are made in this Plan to encourage the development of good management practices for the treatment and disposal of sewage into or onto land. This is being done using a combination of education, promotion, and regulation. A permissive approach has been adopted in the Rules where the Council is satisfied that there will be little or no environmental impact. A co-operative approach between territorial authorities and the Council is promoted because of the closely related functions of the bodies in managing any adverse effects of the use, development and protection of land and water resources.

Given the diverse nature of the Region, and the number of campers, trampers and campervans travelling through the Region, it would be difficult to enforce regulation in terms of the disposal of sewage. Therefore, a combination of promotion and education will be used to try to control these discharges.

The methods relating to identification of the ancestral relationship of tangata whenua with sites and then subsequent consultation have been developed to address the requirements of sections 6(e), 7(a) and 8 of the RMA. Poutini Ngai Tahu have identified the process for addressing issues of concern to them in the above methods. This process relates to both resource consent applications (through notifying papatipu runanga of all consent applications) and to the implementation of alternative methods for achieving policies.

## **6.6 ANTICIPATED ENVIRONMENTAL RESULTS**

### **6.6.1**

Improved water quality due to improvements in the discharge of liquid contaminants to land.

### **6.6.2**

Less untreated or partially treated human effluent entering waterways in the Region.

### **6.6.3**

An increased awareness of the adverse effects associated with inappropriate disposal of human effluent.

### **6.6.4**

An overall reduction of any adverse environmental or cultural impacts from the disposal of liquid contaminants.





## Chapter 7

# AGRICULTURAL CONTAMINANTS

### 7.1 BACKGROUND

There are three main types of agricultural discharges:

1. Discharges of agricultural effluent from the concentration of animals or animal wastes in a small area; for example dairy sheds, piggeries, wintering pads and feedlots.
2. The discharge of other contaminants to land in association with agricultural activities; for example offal pits, silage stacks and farm tips.
3. Discharges resulting from the storage and use of fertilisers and agricultural chemicals, including pesticides and herbicides (Wellington Regional Council, 1994).

Concentrated levels of contaminants from agricultural discharges have a greater risk of adversely affecting soil and water resources and human health.

Agricultural effluent usually contains a mixture of contaminants, including animal faeces and urine, detergent, drench, and straw. High quantities of such effluent have the potential to adversely affect water quality and the land itself.

If not appropriately located and managed, farm tips and offal pits have the potential to contaminate waterways and cause unpleasant odours. Silage stacks are also a potential issue of concern. A recent report by the Centre for Advanced Engineering indicated that leachate from silage stacks is 200 times more concentrated than raw domestic sewage and 40 times more concentrated than dairy shed effluent (Centre for Advanced Engineering, 1992). Effluent from a 300 tonne silage pit is equivalent to the waste produced from a 100 cow dairy shed over 60-150 days.

Leachate of this concentration can have serious effects on surface water, including effects on fish, plants and other stream organisms from severe deoxygenation, high ammonia levels, and algal proliferation from high nutrient levels (Wellington Regional Council, 1994). These effects can be reduced by wilting the silage before it is ensiled.

Agricultural chemicals are a common type of contaminant that is discharged to land as a result of agricultural activities. The term 'agricheicals' refers to pesticides, herbicides and insecticides, but does not include fertilisers. The main issues in relation to agricultural chemicals are the use of agricheicals and the collection and disposal of unwanted chemicals. The management of the use of agricheicals is addressed in this Plan rather than the Regional Air Quality Plan because land is the ultimate receiving environment of the contaminant, and adverse effects associated with their use relate to impacts on that environment.

In addition to the three main concerns identified above there is the problem of stranded stock carcasses as a result of flooding. Stranding occurs as carcasses wash downstream and up onto beaches and river beds. This has caused problems in the past with rotting carcasses near populated areas. There is some uncertainty as to who is responsible for the removal and subsequent burial of these animals, with responsibility falling between the territorial authorities and the Regional Council.

The discharge of agricultural effluent from stock trucks during the transportation of stock is also a problem. Where this effluent is not contained on the vehicle it often results in discharge onto roads and adjacent road reserve. In addition to this, there is also concern over agricultural effluent on roads from the movement of stock. Whilst it can cause deterioration of road surfaces, and has some safety implications for road users, the Regional Council is not responsible for these aspects of road management.

The main concerns for the West Coast Region in terms of agricultural contaminants being discharged to land are:

1. Agricultural Effluent
2. Other Farm Wastes
3. Agricultural Chemicals
4. Stock Carcasses near Waterbodies
5. The Discharge of Agricultural Effluent onto Roads

#### **Agricultural Effluent**

This Plan deals with discharges to land of agricultural effluent that is collected or otherwise managed as a point source discharge. It is not concerned with effluent from grazing livestock in paddocks.

Agricultural effluent discharged to land can have adverse effects on the land itself (e.g. by changing the soil structure), and on plant growth. However, the effects of most concern to the Regional Council are those that result from the contaminants subsequently entering water (groundwater and surface water). Agricultural effluent can have adverse effects on water quality because of its relatively high levels of suspended solids, nutrients and pathogens. These have the following adverse effects:

- ❑ **Biological Oxygen Demand (BOD<sub>5</sub>):** Agricultural effluent has a high organic content which, as it decays, reduces the dissolved oxygen levels in the receiving water. The organic content can cause excessive growths of bacteria and fungi (commonly referred to as sewage fungus). These growths and their associated effects, can change the structure of aquatic ecosystems, and raise the pH of the water.
- ❑ **Nutrients:** High nutrient concentrations, particularly of nitrogen compounds (including nitrates and ammonia) and phosphorous compounds, from agricultural effluent and fertilisers can contribute to excessive algal and plant growths in waterways. Ammonia has toxic effects on organisms such as fish and macroinvertebrates. Nuisance

growths can affect aquatic ecosystems and the aesthetic values of water.

- ❑ **Suspended Solids:** Inorganic and organic materials suspended in the water can affect the clarity and turbidity of water during times when water is naturally clear. This affects aquatic ecosystems and the aesthetic appeal of water. Suspended solids reduce light infiltration (affecting photosynthesis and potentially smothering organisms and habitats).
- ❑ **Pathogens:** Animals excrete high levels of bacteria and viruses. While only some of these are pathogenic, animals and humans have been known to contract diseases from agricultural effluent in water which is used for recreation or consumption.

The cumulative effects of BOD<sub>5</sub>, nutrients, suspended solids and pathogens also need to be considered.

The two main sources of agricultural effluent in the Region are dairy sheds and, to a lesser extent, piggeries. Slaughterhouses, stock races and wintering pads in the Region are also a source of discharges of agricultural effluent.

Agricultural effluent in the Region is disposed of to land by way of soak holes, slurry wagons, and spray irrigation. In some cases, effluent from oxidation ponds and drainage ditches is also discharged to land. Such discharges have the potential to adversely affect groundwater and surface water if inappropriately applied and managed. However, through prudent management, the fertiliser value of agricultural effluent can be realised.

Another characteristic of agricultural effluent disposal in the Region is final discharge of the effluent (frequently untreated, or raw) into waterways. This final discharge is often sub-standard, and therefore, the Regional Council needs to ensure that land treatment of the effluent is adequate. Where effluent is treated and discharged to water, this will be managed through rules in a water management plan.

The Regional Council needs to ensure that the most appropriate practices for disposal of agricultural effluent are being implemented, and that standards appropriate to the Region are developed.

### **Offal Pits, Silage Stacks, Farm Tips and Feeding of Stock**

The Regional Council needs to ensure that other farm wastes are being disposed of appropriately, so that discharges do not result in adverse effects on the environment. If offal pits and farm tips are located too close to water they have the potential to adversely affect water quality. Measures for controlling the location of offal pits and farm tips are included in this Plan.

There is also some concern over the feeding of silage, and other organic material, to stock in or near waterways. While silage can be used as a feed, and the leachate as a fertiliser, this practice can result in contamination of water and the unnecessary movement of stock through water bodies.

In addition to provisions in this Plan, industry guidelines exist which promote good farm management practices, for example, with managing dairy farm effluent, and silage pit leachate. These guidelines are a useful educational tool to minimise adverse environmental effects.

### **Agricultural Chemicals**

The safe storage, transportation and use of agrichemicals on farms is largely a matter of good practice. However, poor storage facilities or practices can result in contamination of soil and water, and risks to human, animal and plant health. Other concerns regarding the use of agrichemicals include the damage to non-target areas, the potential effects on the health of humans and animals and possible contamination of groundwater and surface water due to spray drift. The disposal of agrichemical containers and unwanted agrichemicals is also an issue in the Region, particularly when they are disposed of by way of burning, or in farm tips where leachate could enter waterways.

Agrichemicals are a hazardous substance. Industry is taking steps towards addressing concerns with their use, with the New Zealand Agrichemical Education Trust producing an Agrichemical Users Code of Practice which is now a New Zealand standard (NZS 8409:1995). The Regional Council will encourage the adoption of the Code of Practice by all those who use agrichemicals through the provisions of this Plan. The general use, storage, transportation and disposal of hazardous substances is addressed in Chapter 8.0. However, given the activity specific nature of agrichemicals they will be addressed under the issue of agricultural contaminants.

*See Chapter 8.0  
Hazardous  
Substances*

It is known that some farmers hold stocks of unwanted hazardous substances. For example a 1993 survey of 321 dairy farms in the region indicated that 5.5% of farmers have unwanted agricultural or other chemicals, some of which could not be identified. Although the quantities of such chemicals are thought to be low, it is desirable that unwanted chemicals are either recycled or safely disposed of where possible, or they may eventually be discarded in an unsafe manner (West Coast Regional Council, 1996a). Temporary storage at designated facilities may, therefore, be needed. For some unwanted agricultural chemicals there is currently no safe disposal or recycling method, and these may, therefore, need to be safely stored. Currently research is proceeding within the country on a safe disposal method for unwanted agricultural chemicals.

### **Application of Fertiliser**

Fertiliser is applied throughout the Region to increase the productivity of land. Apart from the geologically most recent soils (such as those in the Grey Valley and the Kokatahi area) many soils in the region are impoverished with regard to nutrients. These soils need to be supplemented to maintain production.

The application of fertiliser has the potential to cause adverse effects. Improper application resulting in entry into water will degrade aquatic ecosystems. Education and promotion of good practice for fertiliser application are methods of avoiding, remedying or mitigating adverse effects.

### Stock Carcasses Near Waterbodies

Occasionally stock carcasses are stranded along river banks and in the coastal marine area after flood events in the Region. The main adverse effects of this are the odour emitted from the rotting carcass, and the threats to human health. The Regional Council works in conjunction with the territorial authorities to remove any such carcasses. Section 542(1)(c) of the Local Government Act 1974 gives territorial authorities power to make bylaws regulating the mode of disposal of dead animals.

## 7.2 ISSUES

**7.2.1: The adverse effects of the discharge of agricultural contaminants to land.**

**7.2.2: The adverse effects of storage, use and disposal of agricultural chemicals.**

## 7.3 OBJECTIVE

**7.3.1 To ensure that the adverse effects from the discharge of agricultural contaminants into or onto land, on water and soil quality, social, cultural and amenity values, and human health are avoided, remedied or mitigated.**

## 7.4 POLICIES

**7.4.1 To promote the discharge of agricultural effluent to land, provided any adverse effects on the environment are avoided, remedied or mitigated.**

*Methods* 7.5.1,  
7.5.2, 7.5.3,  
7.5.4, 7.5.5,  
7.5.6, 7.5.7,  
7.5.17

### Explanation

*The discharge of agricultural effluent can have adverse effects on water quality. The Regional Council is, therefore, encouraging the discharge of agricultural effluent to land rather than to water.*

**7.4.2 To ensure that the discharge of agricultural contaminants to land is conducted in such a way that any adverse environmental effects are avoided, remedied or mitigated.**

*Methods* 7.5.1,  
7.5.3, 7.5.4,  
7.5.5, 7.5.6,  
7.5.7, 7.5.9,  
7.5.10, 7.5.11,  
7.5.12, 7.5.18,  
7.5.17, 7.5.19,  
7.5.20

**Explanation**

*This policy applies to the following activities which involve treating or disposing of wastes:*

- Agricultural effluent;*
- Offal pits;*
- Silage stacks;*
- Farm tips.*

*All these activities can have adverse effects if not properly managed.*

**7.4.3 To promote “good practice” for storage, use, disposal and transportation of agrichemicals to avoid discharges that may have adverse effects on the environment.**

*Methods 7.5.1, 7.5.3, 7.5.4, 7.5.5, 7.5.6, 7.5.7, 7.5.13, 7.5.14, 7.5.15, 7.5.17*

**Explanation**

*The term ‘agrichemicals’ includes all pesticides and herbicides. Good practice is a major way of preventing adverse effects on groundwater, surface water, and human and ecosystem health, which may arise from the incorrect use, storage, and transportation of agrichemicals. Good practice involves recognition that good management, and training of those involved in spray application of agrichemicals, is essential in trying to avoid off-target adverse effects. It is especially important to note that some landowners choose to be “spray free” and as such it is important to avoid these off-target effects.*

**7.4.4 To promote land management practices which minimise the effects on surface and ground water of runoff and leachate from discharges of agricultural contaminants to land, including:**

- Management of riparian margins to reduce surface water pollution from animal residues and fertilisers;**
- Applying fertilisers and agrichemicals at rates which are appropriate to site and weather conditions.**

*Methods 7.5.1, 7.5.15, 7.5.14, 7.5.16, 7.5.18, 7.5.20*

**Explanation**

*Discharges from agricultural activities can contribute to non-point source pollution. This policy reflects the direction taken in the RPS to promote land management practices that minimise adverse effects.*

**7.4.5 To utilise, where necessary, the enforcement provisions of the Resource Management Act 1991 where there are unauthorised discharges to land.**

*Method 7.5.8*

**Explanation**

*The unauthorised discharge of agricultural contaminants to land has the potential to create significant adverse effects, and as such it is important that these are avoided. The utilisation of the enforcement provisions will help to ensure that unauthorised discharges do not occur.*

## 7.5 METHODS

### SEE REGIONAL RULES - CHAPTER 10.0

#### Rule 8

Silage and Silage Wrap

#### Rule 9

Offal Pits

#### Rule 10

Application of Agrichemicals on Domestic Properties

#### Rule 11

Application of Agrichemicals on Areas other than Domestic Properties

#### Rule 12

Application of Fertiliser

#### Rule 13

Land Application of Agricultural Effluent

#### Rule 14

Feed Lots and Wintering Pads

#### Rule 15

Aerial Application of Vertebrate Pest Control Agrichemicals

#### Rule 22

Offal Pits

#### Rule 23

Silage

#### Rule 24

Agricultural Effluent

#### Rule 28

General Discretionary Activities

### 7.5.1

Together with representatives from the farming community, and other relevant organisations, the Council will develop guidelines for:

- Environmentally sound disposal of agricultural wastes (effluent and solid wastes), including alternatives to the discharge to land;
- Appropriate management of agrichemicals; and
- Appropriate land management practices (including good riparian management and agrichemical/fertiliser application) to manage the adverse effects of non-point source pollution of surface water.

*Policies 7.4.1-7.4.4*

### 7.5.2

The Council will promote benefits of recycling agricultural effluent as a natural fertiliser.

*Policy 7.4.1*

### 7.5.3

The Council will utilise a combination of education and regulation to minimise the occurrence of unauthorised discharges.

*Policies 7.4.1-7.4.3*

### 7.5.4

The Council will in conjunction with the papatipu runanga identify the tangata whenua who have an ancestral relationship with sites for disposal of agricultural contaminants and through this process have regard to kaitiakitanga.

*Policies 7.4.1-7.4.3*

<b>7.5.5</b>	Once the Council has identified the relevant tangata whenua for a site, consultation will be undertaken to address their concerns.	<i>Policies 7.4.1-7.4.3</i>
<b>7.5.6</b>	The Council will ensure that the principles of the Treaty of Waitangi are taken into account in any decisions.	<i>Policies 7.4.1-7.4.3</i>
<b>7.5.7</b>	The Council will increase the bi-cultural awareness of the Council and its staff through its committee meetings and by way of regular training sessions facilitated by the iwi liaison officer, or other such methods as appropriate.	<i>Policies 7.4.1-7.4.3</i>
<b>7.5.8</b>	Where education and regulation are not sufficient to minimise the occurrence of unauthorised discharges of agricultural effluent and wastes onto or into land, the Council will utilise the enforcement provisions under the RMA.	<i>Policy 7.4.5</i>
<b>7.5.9</b>	The Council will carry out investigations and monitoring to clarify the contributing sources and effects of non-point source agricultural pollution on groundwater and surface water.	<i>Policy 7.4.2</i>
<b>7.5.10</b>	The Council will monitor the performance of land-based disposal and treatment of agricultural effluent and waste.	<i>Policy 7.4.2</i>
<b>7.5.11</b>	In conjunction with the territorial authorities, the Council will arrange for the removal and disposal of stock carcasses near waterbodies.	<i>Policy 7.4.2</i>
<b>7.5.12</b>	The Council will liaise with local authorities, central government, and other relevant agencies on installation of and standards for the containment of agricultural effluent on stock trucks, and facilities for the collection and disposal of these wastes.	<i>Policy 7.4.2</i>
<b>7.5.13</b>	The Council will co-ordinate with territorial authorities to consider the establishment of a system for the collection, storage and disposal of unwanted agrichemicals and agrichemical containers.	<i>Policy 7.4.3</i>
<b>7.5.14</b>	The Council will promote Codes of Practice and educational courses for all those who use agrichemicals. In conjunction with territorial authorities and other relevant agencies, the Council will encourage commercial users to gain appropriate certification.	<i>Policies 7.4.3, 7.4.4</i>



**7.5.15**

The Council will prepare information brochures on the handling and disposal of agrichemicals and agrichemical containers, and ensure that educational material is available for users of agrichemicals on the prevention of adverse effects on non-target areas.

*Policies 7.4.3, 7.4.4*

**7.5.16**

The Council will encourage the practice of wilting vegetation before ensiling it.

*Policies 7.4.2, 7.4.4*

**7.5.17**

The Council will advocate the policies and guidelines in this section of the Plan to the farming community.

*Policies 7.4.1, 7.4.2, 7.4.3, 7.4.4*

**7.5.18**

The Council will promote good siting and management of silage stacks.

*Policies 7.4.2, 7.4.4*

**7.5.19**

The Council will promote either the re-use (where this is practicable), or appropriate means of disposal, of silage wrap.

*Policy 7.4.2*

**7.5.20**

The Council will implement integrated planning by complementing the provisions of this plan with appropriate provisions in other regional plans.

*Policies 7.4.2, 7.4.4*

**PRINCIPAL REASONS**

In order to support the direction of the Regional Council in terms of the treatment and disposal of agricultural effluent to land, a combination of education, promotion and regulation has been used. The Regional Council recognises that education is an important part of raising resource users awareness and understanding of the resource management issues which the Regional Council is seeking to manage, and is an integral part of improving compliance with the Rules in this Plan.

*See Regional Rules - Chapter 10.0*

The Rules also focus on silage stacks, offal pits, the use of agrichemicals, and the application of fertiliser, because these activities can cause adverse effects on soils and water quality. A relatively permissive approach has been adopted in the Rules because education and the promotion of good practice can have a major impact on the effects of agricultural contaminants. A cooperative approach between local authorities and farmers is promoted because the effects of agricultural contaminants are cumulative, and therefore require a collective approach.

The methods relating to identification of the ancestral relationship of tangata whenua with sites and then subsequent consultation have been developed to address the requirements of sections 6(e), 7(a) and 8 of the RMA. Poutini Ngai Tahu have identified the process for addressing issues of concern to them in the above methods. This process relates to both resource consent applications (through notifying papatipu runanga of all consent applications) and to the implementation of alternative methods for achieving policies.

The Regional Council through the Rules in this Plan are actively supporting industry initiatives such as the preparation of Codes of Practice, where the Regional Council believes these are appropriate in meeting the purpose of the RMA.

Other methods used are a mix of promotion and education, and service delivery. The use of economic instruments such as tradeable discharge permits may be considered in the future.

## **7.6 ANTICIPATED ENVIRONMENTAL RESULTS**

### **7.6.1**

Improved water quality due to improvements in the discharge of agricultural contaminants, including effluent, to land.

### **7.6.2**

An increased awareness of the effects of the discharge of agricultural effluent to land.

### **7.6.3**

An improvement in management practices for the treatment and disposal of agricultural effluent.

### **7.6.4**

An overall reduction of any adverse environmental or cultural impacts from the disposal of agricultural contaminants.

### **7.6.5**

Improved management of offal pits and waste disposal sites on production land.

## Chapter 8

# HAZARDOUS SUBSTANCES

### 8.1 BACKGROUND

Hazardous substances have the ability to impair human, plant or animal health or may adversely affect the environment. Examples of hazardous substances include liquid fuels, agricultural sprays, paint strippers, solvents, batteries, transformer oils, asbestos, and timber treatment chemicals. This Plan deals with discharges of such substances to land, including planned discharges such as use of chemicals, and unplanned discharges such as accidental spills.

It is important for the protection of public health and environmental quality that hazardous substances are properly managed. This requires a holistic approach to management, using the 'cradle to grave' approach, from production through to transportation, storage, use and disposal.

The 1992 Regional Solid Waste Management Strategy 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 co-disposal<sup>4</sup>, 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. It is noted in the RPS that the establishment of facilities for the safe disposal and management of hazardous waste is to be promoted.

The Hazardous Substances and New Organisms (HSNO) Act 1996 is environmental and health and safety legislation designed to manage the risk of using hazardous substances in business and at home.

The HSNO Act is designed to pull together management of hazardous substances into one comprehensive law that focuses on all of the hazards that these substances present, and their effects.

The Environmental Risk Management Authority (ERMA) is an independent body established under the HSNO Act. Its role is to assess the environmental and health risks posed by hazardous substances, and to place controls to make sure these are managed properly.

Under the HSNO Act any person wanting to import or manufacture a hazardous substance for the first time in New Zealand must first gain approval to do so from the Authority.

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<sup>4</sup> Co-disposal is the disposal of certain hazardous and/or special wastes in combination with non-hazardous wastes for the purposes of using the interactive processes between different types of waste to minimise the hazard.

The HSNO Act provides for the establishment of a hazard classification system by regulation. Under this system, hazardous substances are classed according to the intrinsic hazardous substance properties with a prescribed level or type of hazard. Regulations prescribe controls for each hazard classification.

Regulations may also be made setting standards for packaging, labelling, disposal, and tracking hazardous substances, and prescribing the procedures to be followed in emergencies. A person handling hazardous substances may be required by regulation to hold specified qualifications.

The authority may relax or tighten the controls for any specific substance. The authority is able to issue codes of practice which set out methods of compliance with the requirements of regulations.

Enforcement responsibilities under the HSNO Act is shared by a number of agencies, including Land Transport Safety Authority, Police, Director of Civil Aviation, Director of Maritime Safety, Ministry of Health, and territorial authorities. The Regional Council is not given responsibilities for enforcement under the Act.

The Regional Council is bound by, and must comply with, the provisions of the HSNO Act, and any regulations made under it. Accordingly, the provisions of any Regional Plan must be consistent with the HSNO Act and regulations, and cannot allow lower standards for the storage, use, disposal or transportation of hazardous substances than are prescribed under the HSNO Act. This applies to this Plan in dealing with discharges of hazardous substances.

As the HSNO Act comes into force and regulations made under it, it may be necessary to review the provisions of this Plan relating to hazardous substances to ensure consistency.

The concerns for the West Coast Region in terms of hazardous substances being discharged to land are :

1. Lack of information
2. Transportation, storage, use of hazardous substances
3. Disposal and treatment of hazardous wastes
4. Emergency planning

A list of characteristics of hazardous substances is included in Appendix 5.0.

#### **Lack of Information**

There is a lack of information on quantities and movements of hazardous substances and wastes generated and disposed of in the Region. This makes it difficult to identify areas where there may be problems.

Manifest systems may be introduced which track the life of the more serious hazardous substances. A management process for hazardous substances has

been developed by the Ministry for the Environment and adapted by the Otago Regional Council (1994), and is illustrated in Figure 1.

With a manifest system, the emphasis is on managing hazardous wastes throughout their life cycles, rather than merely reacting to their sudden appearance on the public scene as a waste which is hazardous to people and the environment. Such a system will provide information on the quantity of hazardous wastes brought into or generated within the region, and the amount requiring disposal.

### **The Transportation, Storage, and Use of Hazardous Substances**

As with the quantities and movements of hazardous substances and wastes generated and disposed of within the region, there is a similar lack of information about the **transportation** of hazardous substances to and from the Region.

As there are no suitable facilities for the disposal of hazardous wastes in the Region (such as sanitary landfills, purpose-built landfills for co-disposal, high temperature incinerators, base-catalysed dechlorination facilities), it may be necessary to transport hazardous wastes out of the Region. To this end, the agreement of other local authorities may be needed.

The transportation of hazardous substances is primarily dealt with under other legislation, including the Transport Act 1962 and the Code of Practice for the Transport of Hazardous Substances on Land (NZS 5433:1988). In general, the transport of hazardous substances in the Region is only of concern where transportation practices fail to adhere to the Code or relevant legislation, and inappropriate discharges occur.

The day to day operations of facilities using or **storing** hazardous substances are not generally an issue of regional concern, and are adequately covered under other legislation (in particular, the Building Act 1991).

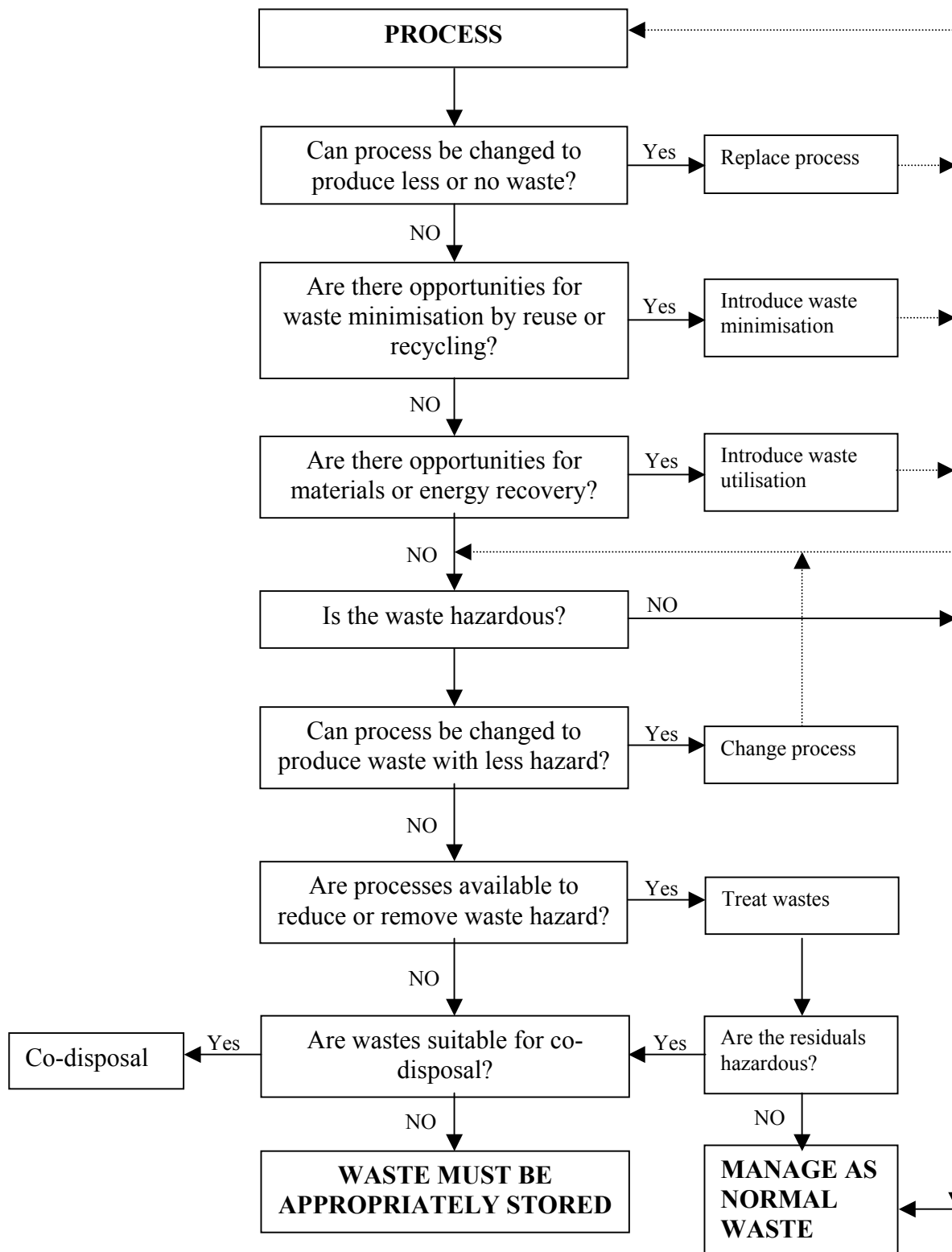
The storage or use of hazardous substances becomes an issue of concern for this Plan only when inappropriate use or storage practices may result in the unauthorised discharge of a hazardous substance to land (Wellington Regional Council, 1994).

Poor storage practices and spills of hazardous substances can create contaminated sites and can also have adverse effects on freshwater quality, air quality, human health, ecosystems and the coastal environment. In the case of an inappropriate discharge of hazardous substances from storage facilities, it will be necessary to develop emergency responses and contingency plans.

The main concern with the **use** of hazardous substances is the unauthorised discharge of a hazardous substance to land. Planned discharges of hazardous substances where there is potential for significant adverse effects will be controlled through the resource consent process. On-site management is essential to ensure that appropriate management practices are in place for those who use or store hazardous substances. In order to minimise the potential for adverse effects, it will be necessary for those that use or store large volumes of highly hazardous substances to prepare contingency plans that provide for the control, containment, and land clean-up of a spill (see Emergency Planning).

**Figure 1: -Evaluation of a waste producing process and the management of potentially hazardous waste (Source: Otago Regional Council, 1994)**

This figure shows a methodology for evaluating the waste production process and the management of potentially hazardous waste. The importance of cleaner production and waste minimisation is recognised in Chapter 5.0. Such waste management measures reduce the adverse effects of hazardous waste disposal on the environment.



## Disposal and Treatment of Hazardous Wastes

Currently in the Region there are no recognised facilities for the **disposal** of hazardous substances, and it is unclear how hazardous substances are being disposed of. The inappropriate disposal of hazardous substances is of concern to the Region. Without a regional storage or disposal system or collection and disposal strategy, the ad hoc collection and storage of hazardous substances has the potential to have greater adverse effects than no collection. It is, therefore, important that the Regional Council ensure that a regional collection and disposal system is established, or negotiate for the disposal of hazardous substances outside the Region following their collection and temporary storage. The storage of redundant agricultural chemicals and their uncontrolled disposal is a real concern throughout the Region. So too are the hazardous substances used and stored and the hazardous wastes produced by manufacturing industries, associated commercial services, forestry sectors and households.

The inappropriate use of waste oil as a dust suppressant is also of concern to the Regional Council, particularly when its disposal to land results in mobilisation by stormwater runoff into surface waters. An additional problem is the mobilisation of waste oil by wind and traffic, spreading contaminated soil past the area of intended application. The disposal of oily waste produced from the clean-up of oil spills has the potential to be a significant issue in the Region. Disposal of oily waste to an uncontrolled landfill could contaminate groundwater, surface water and soil. This is a particular concern for oils with a high lead content. There are facilities available for the collection and recycling of waste oil within the Region (such as at petrol stations). Some industries already voluntarily utilise these types of facilities. This alternative is encouraged in order to avoid the inappropriate disposal of waste oil to land. The Regional Council will continue to promote the collection and recycling of waste oil.

One recognised disposal technique is co-disposal. This is the carefully managed placement of hazardous wastes in a landfill together with ordinary municipal waste. However, not all types of hazardous waste can be disposed of in this way. Given that new landfills are likely to be developed in the near future in the Region, it may be appropriate to consider incorporating co-disposal into these new facilities. Another option is transporting the hazardous wastes out of the Region for disposal or treatment. This would require strict controls on the transportation of the hazardous wastes and would require the approval of other affected local authorities. This would also require the establishment of a collection system for hazardous substances. This could be done by the establishment of a collection and storage facility at one or more of the new landfills.

There will always be some hazardous wastes which cannot be disposed of safely or economically, and therefore cannot be accepted for co-disposal. The Regional Council, therefore, needs to integrate its activities with those of the Ministry for the Environment and territorial authorities to develop appropriate policies and strategies for long-term solutions to hazardous waste management. Given the wide variety of differing characteristics



which hazardous substances exhibit, it is likely that a range of disposal options will be required. Some hazardous wastes, particularly intractable ones, are likely to be the responsibility of central government, since their disposal is likely to require a coordinated national approach. To this end, the Ministry for the Environment is currently investigating methods and facilities for the disposal and treatment of such hazardous wastes.

**Emergency Planning**

Where an accidental discharge of a hazardous substance occurs it is necessary that contingency plans are in place to deal with the discharge. These contingency plans are an essential part of on-site management plans, and should be provided by all those handling and storing hazardous substances. The Regional Council can provide guidelines for the establishment of these contingency plans, and should be responsible for ensuring that they are in place where an accidental discharge of a hazardous substance is likely to have an adverse effect. Any accidental discharges are handled in the first instance by the emergency services. If the discharge proves to be too large for the emergency services to handle, it is referred to a territorial authority for a civil defence response.

**8.2 ISSUE**

**8.2.1 The adverse effects of the storage, use, transportation and disposal of hazardous substances on human health, water, soil quality, indigenous flora and fauna, and social, cultural and amenity values.**

**8.3 OBJECTIVE**

**8.3.1 To ensure that the adverse effects from the discharge of hazardous substances into or onto land, on water and soil quality, social, cultural and amenity values, indigenous flora and fauna, and human health are avoided, remedied or mitigated.**

**8.4 POLICIES**

**8.4.1 To promote good practice for storing, transporting and using hazardous substances, including promoting adherence to relevant codes of practice and guidelines, where appropriate.**

**Explanation**

*The promotion of 'good practice' is an effective way of preventing or minimising the potential for adverse effects from discharges which may arise from incorrect storage, transportation or use of hazardous substances. This policy provides for the adoption of a more standardised and coordinated approach to hazardous substances management through the utilisation of national guidelines or codes of practice.*

*Methods 8.5.6,  
8.5.12, 8.5.14,  
8.5.20, 8.5.22,  
8.5.23*

**8.4.2 To avoid inappropriate or uncontrolled disposal of hazardous wastes to land.**

**Explanation**

*The disposal of hazardous wastes in the region is an issue of concern. Avoiding uncontrolled or inappropriate discharges of hazardous wastes to land involves the provision of alternatives for safe collection, storage, treatment and disposal. This policy reflects the direction taken in the Regional Policy Statement, which discusses the establishment of a regional storage and disposal system for hazardous wastes.*

*Methods* 8.5.1,  
8.5.2, 8.5.8, 8.5.15,  
8.5.17, 8.5.18,  
8.5.21, 8.5.24,  
8.5.25

**8.4.3 To provide for the mitigation of adverse effects associated with the accidental discharge of hazardous substances, by requiring the preparation of contingency plans where appropriate.**

**Explanation**

*Contingency plans are necessary to ensure that the potential adverse environmental effects from the discharge of hazardous substances following an accidental discharge are avoided or mitigated. Where it is not possible to remedy the environmental effects after the discharge has occurred, it is important that adequate emergency measures are in place to ensure that environmental damage is minimised. Thus, when resource consents are required for activities involving the storage or use of significant quantities of hazardous substances, contingency plans may be required as a condition of consent to deal with any accidental discharges.*

*Methods* 8.5.9,  
8.5.18, 8.5.19

**8.4.4 To adopt an inter-agency coordinated approach to the management of hazardous substances.**

**Explanation**

*This policy relating to inter-agency cooperation reflects the number of different agencies with roles in hazardous substances management, and the need for liaison and coordination. The Regional Council is involved in a working group with representatives of territorial authorities and other interest groups, to develop a co-ordinated approach to investigating regional hazardous substance collection, storage, treatment and disposal options. Policy 8.4.4 is also consistent with Policy 12.1.1 of the Regional Policy Statement.*

*Methods* 8.5.5,  
8.5.7, 8.5.10,  
8.5.11, 8.5.13,  
8.5.19

**8.5 METHODS**

**SEE REGIONAL RULES – CHAPTER 10.0**

**Rule 25**

**Discharge of Hazardous Wastes**

**Rule 27**

**Discharge of Waste Oil as a Dust Suppressant**

**8.5.1**

The Council will in conjunction with the papatipu runanga identify the tangata whenua who have an ancestral relationship with sites for disposal of hazardous substances and through this process have regard to kaitiakitanga.

*Policy 8.4.2*

**8.5.2**

Once the Council has identified the relevant tangata whenua for a site, consultation will be undertaken to address their concerns.

*Policy 8.4.2*

**8.5.3**

The Council will ensure that the principles of the Treaty of Waitangi are taken into account in any decisions.

**8.5.4**

The Council will increase the bi-cultural awareness of the Council and its staff through its committee meetings and by way of regular training sessions facilitated by the iwi liaison officer, or other such methods as appropriate.

**8.5.5**

The Council will liaise with territorial authorities and neighbouring regional councils regarding the transport of hazardous substances throughout the Region to enable a consistent approach in policies and plans.

*Policy 8.4.4*

**8.5.6**

The Council will publish guidelines on the safe storage, use, transportation and disposal of hazardous substances.

*Policy 8.4.1*

**8.5.7**

The Council will work with territorial authorities to develop appropriate provisions in district plans for controlling the use of land to avoid, remedy or mitigate any adverse effects from hazardous substances, and to promote the safe storage, use, and transportation of hazardous substances.

*Policy 8.4.4*

**8.5.8**

The Council will promote the use of technologies that safely renovate or dispose of hazardous waste.

*Policy 8.4.2*

**8.5.9**

The Council will work in conjunction with the territorial authorities, emergency services and the discharger responsible (where identified), in dealing with accidental discharges of hazardous substances to land.

*Policy 8.4.3*

**8.5.10**

The Council will liaise with other regional councils over the transportation of hazardous wastes between regions.

*Policy 8.4.4*

**8.5.11**

The Council will advocate that central government urgently address the issues of:

*Policy 8.4.4*

- The development of national guidelines on the treatment and

disposal of hazardous waste

- ❑ The development of national policies and guidelines which promote hazardous waste minimisation and which ensure the safe disposal of hazardous waste
- ❑ The development of national policies and guidelines for setting up collection sites, in relation to the industries in the Region that use and store hazardous substances
- ❑ The development of a national register of hazardous substances
- ❑ The development of a national tracking system for hazardous substances
- ❑ Funding for development of regional storage facilities for hazardous waste.

#### 8.5.12

The Council will provide input into industry Codes of Practice.

*Policy 8.4.1*

#### 8.5.13

The Council, in conjunction with territorial authorities, may require the use of economic instruments such as bonds for all resource consents involving discharges of hazardous substances.

*Policy 8.4.4*

#### 8.5.14

The Council will encourage and promote in accordance with the integrated waste management hierarchy, the implementation of waste minimisation initiatives (including Cleaner Production), Re-Use, Recycling and Resource Recovery initiatives and waste audits to reduce the use of hazardous substances.

*Policy 8.4.1*

#### 8.5.15

The Council will promote the development and implementation of voluntary take-back schemes by industry groups (e.g. used oil).

*Policy 8.4.2*

#### 8.5.16

The Council will promote the replacement of hazardous substances with non-hazardous substances and encourage the use of safer alternatives to hazardous substances, where appropriate and practicable.

#### 8.5.17

The Council will require as part of a resource consent application for facilities disposing of hazardous wastes, the preparation of facility management plan to address issues concerning the control of discharges and the effects thereof.

*Policy 8.4.2*

#### 8.5.18

The Council will, where necessary, use enforcement or emergency works procedures for the breach of consent conditions and the mismanagement of hazardous substances, including accidental discharge.

*Policies 8.4.2, 8.4.3*

**8.5.19**

The Council will prepare, in consultation with territorial authorities, and other relevant agencies, a register of industries using and storing significant quantities of hazardous substances and emergency response procedures.

*Policies 8.4.3, 8.4.4*

**8.5.20**

The Council will prepare an information and education package on how to minimise the potential for hazardous spills during storage, use and transportation of hazardous substances and what to do in the event of a spill.

*Policy 8.4.1*

**8.5.21**

The Council will continue to participate in national working groups to ensure, as far as practicable, consistency of approach on hazardous waste management matters between regions and to facilitate liaison and advocacy at central government level.

*Policy 8.4.2*

**8.5.22**

The Council will encourage all applicators of agrichemicals to attend appropriate educational and training courses.

*Policy 8.4.1*

**8.5.23**

The Council will promote Codes of Practice and educational courses for all those who use agrichemicals. In conjunction with other relevant agencies, the Council will encourage commercial users to gain appropriate certification.

*Policy 8.4.1*

**8.5.24**

The Council will coordinate with territorial authorities to consider the establishment of a regional collection, storage and disposal system for hazardous substances.

*Policy 8.4.2*

**8.5.25**

The Council will advocate and encourage the collection of waste oil by oil companies and distributors.

*Policy 8.4.2*

**8.5.26**

The Council will implement integrated planning by complementing the provisions of this plan with appropriate provisions in other regional plans.

**PRINCIPAL REASONS**

Adverse environmental effects, such as contamination of water and soils, can result from spills, inappropriate storage and disposal and uncontrolled use of hazardous substances. The Regional Council is one of several organisations with responsibilities for hazardous substances, ensuring that their use, storage, transportation and disposal do not result in adverse effects on the environment.

In order to achieve the objective and policies it is necessary for a number of methods to be adopted. These range from regulation through to education and the supply of information. The use of these methods recognises that no one method will be successful in achieving the objective and policies, rather an integrated approach is necessary. Such methodology has been adopted to allow for control where required, such as the planned discharge of hazardous substances and wastes, and for a guideline-oriented approach in relation to storage, use and transportation.

*See Regional Rules  
- Chapter 10.0*

The methods relating to identification of the ancestral relationship of tangata whenua with sites and then subsequent consultation have been developed to address the requirements of sections 6(e), 7(a) and 8 of the RMA. Poutini Ngai Tahu have identified the process for addressing issues of concern to them in the above methods. This process relates to both resource consent applications (through notifying papatipu runanga of all consent applications) and to the implementation of alternative methods for achieving policies.

Waste audits involve collecting information on how waste materials enter the waste stream within a facility and then prioritising the waste stream in terms of the degree of hazard and the quantity of waste. Waste audits, along with Cleaner Production initiatives, are useful tools in reducing the use of hazardous substances. A management system is needed which minimises the use of hazardous substances, encourages Cleaner Production, better identifies products of hazardous waste, and monitors present storage, transportation and disposal activities. Such a management system will reduce the potential for adverse effects from discharges of hazardous substances.

The methods adopted focus on ensuring that management of the storage, use, and transportation of hazardous substances is such that the likelihood of accidental discharges is minimised through the provision of suitable storage, transport and handling facilities. Also, the adverse effects of an accidental discharge are avoided, remedied or mitigated through emergency preparedness procedures and the provision of suitable containment facilities. In terms of hazardous waste disposal, the requirement for resource consents enables appropriate controls to be determined on a site by site basis.

## **8.6 ANTICIPATED ENVIRONMENTAL RESULTS**

### **8.6.1**

The adverse effects of discharges from the use, storage, transportation and disposal of hazardous substances are avoided, remedied or mitigated.

### **8.6.2**

An improved knowledge of the amounts and types of hazardous substances being used, stored, transported and disposed of in the Region.

## Chapter 9

# CONTAMINATED SITES

### 9.1 BACKGROUND

A contaminated site is a site at which hazardous substances occur at concentrations above background levels, and where assessment indicates it poses or is likely to pose an immediate or long term hazard to human health or the environment. *Background levels* refer to ambient levels of a contaminant in the local area of the site under consideration. Contamination can occur as a result of industrial, agricultural, or commercial activities, by accident, and at sites used for the processing, storage or disposal of hazardous substances or hazardous wastes.

Contaminated sites may affect the surrounding and immediate environment (ie air, land, water) as well as the health of humans, animals and plants when they are exposed to contaminants. Pathways for the transfer of contaminants include:

- Leaching into groundwater;
- Surface run-off into waterways;
- Wind blown dust and dirt;
- Ingestion of soil, particularly by children and stock;
- Growing food crops in contaminated soil;
- Spillage and leakage during transportation;
- Direct discharge into/onto ground and water;
- Physical contact and inhalation.

The value of land and its potential for rural, urban or recreational uses can be markedly reduced by the adverse effects of contaminated sites. Other concerns associated with contaminated sites arise from groundwater contamination, residential development of former industrial, commercial, landfill or agricultural land, and the abandonment of industrial land or waste disposal sites (Otago Regional Council, 1994).

The Regional Council has prepared a database of sites in the Region that have in the past been used for activities that are commonly associated with storage or use of hazardous substances. Sites identified are based on a list of industries and land uses associated with contamination, prepared by the Australian and New Zealand Environment Conservation Council (1992) (ANZECC). These include timber treatment sites, existing and former refuse tips, petrol stations, industrial sites, chemical manufacturers, and power stations.

Inclusion of the sites on the land-use database does not imply that the sites are either potentially contaminated or contaminated. A site is included in the listing because it falls within the land use categories identified in the ANZECC Guidelines, not because it is considered to be potentially contaminated.

The sites identified will be ranked on the basis of risk and prioritised for further investigation. Once sites have been positively identified as contaminated, site management will have to be prioritised and appropriate management measures will have to be determined. Another issue will be establishing liability for the clean-up of the site. For some sites it will be difficult to determine who was responsible for the contamination in the first place.

In order to prevent more sites becoming contaminated, it is necessary to adopt good management practices for the management of hazardous substances (see Chapter 8.0). It is also important that new landfills are designed and operated to avoid the contamination of land (and water) in the vicinity of the landfill, and that contamination from existing landfills is avoided, remedied or mitigated (see Chapter 5.0).

The main concerns for the West Coast Region in terms of contaminated sites are:

1. Location and classification;
2. Management and liability;
3. Prevention of future contaminated sites.

#### **Location and Classification**

It is important that more information is collected on the number of sites in the Region in the ANZECC land use category, with work needed on locating sites associated with past and current mining and agricultural activities. The sites that have been identified by the Regional Council to date provide a basis for further investigation. As some contaminated sites pose fewer problems than others, priorities should be directed toward management of the most high risk sites first.

#### **Management and Liability**

Where a contaminated site has been identified as requiring management, the level to which this should be done will become an issue between land owners and regulatory authorities. Central government has not set any standards in this regard, but some guidance is provided by the Australian and New Zealand Environment and Conservation Council (ANZECC, 1992) who have released guidelines for the assessment and management of contaminated sites. Internationally, clean-up follows one or a combination of the following approaches:

1. clean-up to background levels;
2. clean-up to defined minimum standards;
3. clean-up to appropriate levels as defined by a specific risk assessment.

(Environment Waikato, 1994a)



The Regional Council could formally adopt the guidelines for the clean-up of contaminated sites prepared by ANZECC (1992), and similar guidelines prepared by the Ministry for the Environment (1992c). The ANZECC Guidelines are recognised nationally as providing a framework for the proper assessment and management of contaminated sites. The Regional Council will utilise these in its approach to management of these sites.

Other recognised guidelines address specific contaminated sites issues, such as the Ministry for the Environment's "Guidelines for Assessing and Managing Contaminated Gasworks Sites in New Zealand" (Ministry for the Environment, 1997b) and "Guidelines for the Assessment and Management of Petroleum Hydrocarbon Contaminated Sites" (Ministry for the Environment, 1997c). These guidelines will also be relevant in the Regional Council's approach to management of these sites.

The difficulty arises where a landowner cannot be found or does not have the financial means to remediate the site. The costs then fall to the community, either in the form of funding for the management, or because of the costs of environmental and health effects. If the site affects or is likely to affect human health, then public health services will become involved.

Strict liability for the management of contaminated sites lies with the owners of the site. However, there is a problem with liability for 'orphan sites'. Orphan sites are either those for which the person(s) responsible for the contamination cannot be located, or sites for which it is not fair or reasonable to expect the current owners to accept liability.

The discharge of contaminants from contaminated sites constitutes a discharge in terms of section 15 of the RMA. The legislation provides for the clean-up of sites that have been confirmed as being contaminated. Where a discharge of contaminants is identified, applications for resource consents, with an accompanying Assessment of Environmental Effects (AEE) and site management plans, will be required (Hawkes Bay Regional Council, 1994).

Remediation is encouraged to reduce the risk of adverse effects of discharges occurring and/or spreading from contaminated sites. A resource consent is, therefore, not required under the contaminated sites rule in this Plan for remediation activities that involve moving contaminated material on-site as part of the remediation work, or movement to another location for removal or disposal of contaminated material. A consent may be required for acceptance of contaminated material at another site under the rule for discharges of hazardous waste (See Rule 25).

The Regional Council will encourage remediation to be undertaken in accordance with relevant ANZECC guidelines for site management and cleanup. Appropriate remediation can be determined by assessment during the contaminated site investigation process.

Where the owner/occupier of the site can be identified as being responsible for the contamination, they can be required to clean up the site if a discharge is occurring offsite. If the polluter can be identified where they do not own or occupy the site, cost-recovery and management can be sought. In the case of 'orphan sites' (as defined above) the Regional Council will seek help from central government for management.

### Prevention of Future Contaminated Sites

It is essential that site contamination in the future is avoided or mitigated. In order to do this, management practices need to be put in place for the activities that have the potential to result in contaminated sites. A number of codes of practice have been developed for various industries which address these concerns, for example the Agrichemical Users' Code of Practice (NZ Agrichemicals Education Trust, 1993), and the Code of Practice for the Safe Use of Timber Preservatives and Antisapstain Chemicals (Department of Labour and OSH, 1992).

At sites on which potentially contaminating activities are occurring, the owners and operators need to be familiar with the necessary precautions, and mitigation measures that are appropriate in the event of an accident. Owners and operators will need to undertake their operations in accordance with any rules laid out in this Plan, relating to the use, storage and disposal of hazardous substances, and the disposal of hazardous wastes.

### 9.3 ISSUE

**9.2.1 The adverse effects associated with contaminated sites on water quality, soil quality, human health, and amenity, social and cultural values.**

### 9.3 OBJECTIVE

**9.3.1 To avoid, remedy, or mitigate risks to the environment presented by discharges from contaminated sites, including risks to human health, social, cultural and amenity values, and soil and water quality.**

### 9.4 POLICIES

**9.4.1 To locate and investigate contaminated sites in the West Coast region.**

*Methods 9.5.1 - 9.5.4*

#### Explanation

*Contaminated sites potentially pose a serious risk to human health and the environment. It is necessary to obtain further information on the number of sites and prioritise these for investigation and management, to minimise these risks. A staged approach will be adopted, which recognises that the priority for identification and the degree of investigation of contaminated sites will be determined according to the level of risk posed.*

**9.4.2 To contain and remediate, or require containment and remediation of, contaminated sites that are causing adverse effects on the environment.**

Methods 9.5.8 -  
9.5.11, 9.5.13,  
9.5.14

**Explanation**

*When a contaminated site is identified, it will be necessary to determine the degree to which the contaminants are contained within that site, and the risks posed by the site. Part of this risk assessment includes assessing the significance of adverse effects, and the mobility and toxicity of any discharge. Work may then be required to avoid, remedy or mitigate any adverse effects on the environment.*

**9.4.3 To promote, and where necessary require, the adoption of management practices that avoid or mitigate the potential for future contamination.**

Methods 9.5.15 -  
9.5.17

**Explanation**

*Minimising the risk of contamination in future by adopting good management practices is an essential part of achieving the objective. This policy reflects the fact that preventing contamination is more efficient and effective than clean-up and rehabilitation in future.*

**9.5 METHODS**

**SEE REGIONAL RULES - CHAPTER 10.0**

**Rule 26**

**Contaminated Sites**

**9.5.1**

The Council will identify, evaluate and prioritise sites associated with the storage or use of hazardous substances, in accordance with the land use categories identified within the ANZECC guidelines, for further investigation on the basis of risk, and/or the requirements of national technical guidelines.

Policy 9.4.1

**9.5.2**

The Council will prepare a regional register of contaminated sites which contains information on the location and potential hazards of confirmed contaminated sites in the Region.

Policy 9.4.1

**9.5.3**

The Council will in conjunction with the papatipu runanga identify the tangata whenua who have an ancestral relationship with contaminated sites and through this process have regard to kaitiakitanga.

Policy 9.4.1

<p><b>9.5.4</b> Once the Council has identified the relevant tangata whenua for a site, consultation will be undertaken to address their concerns.</p>	<p><i>Policy 9.4.1</i></p>
<p><b>9.5.5</b> The Council will ensure that the principles of the Treaty of Waitangi are taken into account in any decisions.</p>	
<p><b>9.5.6</b> The Council will increase the bi-cultural awareness of the Council and its staff through its committee meetings and by way of regular training sessions facilitated by the iwi liaison officer.</p>	
<p><b>9.5.7</b> The Council will establish an Inter-agency Working Group to assist in coordinating the management of contaminated sites in the West Coast Region.</p>	
<p><b>9.5.8</b> The Council will work with national agencies, other regional councils, territorial local authorities, and other organisations to develop appropriate management options for contaminated sites under investigation. The Council will work with the polluter/owner/occupier to implement strategies for confirmed contaminated sites.</p>	<p><i>Policy 9.4.2</i></p>
<p><b>9.5.9</b> Where the Council identifies a contaminated site as being of high priority for management and the site is categorised as “orphaned”, the Regional Council will undertake a preliminary site investigation to determine future management strategies for the site.</p>	<p><i>Policy 9.4.2</i></p>
<p><b>9.5.10</b> The Council will use enforcement procedures (where necessary) for clean-up of discharges from a contaminated site where ownership and responsibility for the site have been clearly identified.</p>	<p><i>Policy 9.4.2</i></p>
<p><b>9.5.11</b> The Council will advocate to central government that funds be established to finance the management of orphaned contaminated sites.</p>	<p><i>Policy 9.4.2</i></p>
<p><b>9.5.12</b> The Council will work with territorial authorities to develop appropriate mechanisms for controlling the use of land associated with contaminated sites, such as the incorporation of confirmed contaminated sites onto Project Information Memoranda and Land Information Memoranda.</p>	<p><i>Policy 9.4.3</i></p>
<p><b>9.5.13</b> The Council will encourage owners of potentially and confirmed contaminated sites to take primary responsibility for characterising the degree of contamination of the site and to assume responsibility for appropriate remedial action (if necessary) and management of the site.</p>	<p><i>Policy 9.4.2</i></p>

**9.5.14**

The Council will require owners/occupiers to apply for resource consents for any discharges arising from a contaminated site (including stormwater) that are having, or are likely to have, adverse environmental effects off-site.

*Policy 9.4.2***9.5.15**

The Council will prepare and distribute information pamphlets on the safe storage, use, transportation and disposal of hazardous substances.

*Policy 9.4.3***9.5.16**

The Council will support the preparation and adoption of appropriate Codes of Practice, and education programmes to prevent future site contamination.

*Policy 9.4.3***9.5.17**

The Council will promote the use of “Cleaner production” in replacing hazardous substances with safer alternatives and promote waste minimisation practices.

*Policy 9.4.3***9.5.18**

The Council will implement integrated planning by complementing the provisions of this plan with appropriate provisions in other regional plans.

**PRINCIPAL REASONS**

A range of methods have been adopted that will enable the Regional Council to identify contaminated sites, determine the level of risk associated with them, and develop plans for mitigating further adverse effects, in consultation with the landowner/occupier/polluter and relevant authorities. It is also important that sites are prevented from becoming contaminated in the future. Education, promotion and regulation are important tools for ensuring that contamination is avoided, or at least, minimised. The risk of contamination from a discharge to land, for example, from using waste oil as a dust suppressant, can be assessed through the resource consent process.

*See Regional  
Rules -Chapter  
10.0*

In conjunction with the functions of the Regional Council under Section 30 of the RMA, regulation has been adopted to control the discharge of contaminants from contaminated sites.

The methods relating to identification of the ancestral relationship of tangata whenua with sites and then subsequent consultation have been developed to address the requirements of sections 6(e), 7(a) and 8 of the RMA. Poutini Ngai Tahu have identified the process for addressing issues of concern to them in the above methods. This process relates to both resource consent applications (through notifying papatipu runanga of all consent applications) and to the implementation of alternative methods for achieving policies.

Responsibility for contaminated sites is primarily with the site owners, this being consistent with the liability provisions for contaminated sites in the Health Act 1956 (s33) and the assumptions of liability for discharge of

contaminants under the RMA. However, due to the problems and costs associated with determining liability and rehabilitating contaminated sites, particularly where sites are “orphaned” or where it would be unreasonable to expect the current owners to accept liability, central government assistance could be required. For this reason the Regional Council will advocate to central government that funding and assistance be provided in determining liability and undertaking management for orphan sites.

## **9.6 ANTICIPATED ENVIRONMENTAL RESULTS**

### **9.6.1**

Location and assessment of contaminated sites that are of risk to the environment.

### **9.6.2**

The risks associated with confirmed contaminated sites are reduced to acceptable levels.

### **9.6.3**

Management of high risk contaminated sites.

### **9.6.4**

Measures established to avoid creating new contaminated sites.

## Chapter 10 REGIONAL RULES

### 10.1 REGIONAL RULES

*This section sets out the regulatory approach that the Regional Council has taken in terms of achieving the objectives and policies outlined in Chapters 5 – 9. A full description of the resource consent process is provided in Chapter 11.*

Each rule specifies activities, which are permitted, controlled, discretionary or prohibited. The rules are followed by explanations, which set out why particular activities require the level of control specified.

- ❑ If the activity is **permitted**, then it can take place without a resource consent from the Regional Council, provided any conditions specified in the rule are met.
- ❑ If the activity is **controlled**, then it requires a resource consent. The activity will have to comply with any standards and terms set out in the Rule. While the Council cannot refuse consent, it can impose conditions on the matters over which it has, through the rule, reserved control.
- ❑ If the activity is **discretionary**, then it requires a resource consent. The activity will also need to comply with any standards and terms set out in the rule, and the Regional Council has discretion to grant or refuse the consent.
- ❑ If the activity is expressly **prohibited** by a Rule in this Plan, it cannot take place and no resource consent may be granted authorising it.

Refer to Appendix 1.0 for the legal definitions of permitted, controlled, discretionary and prohibited activities.

Regional rules have the force of regulations made under the RMA. The enforcement provisions of the RMA may, therefore, be applied if rules are breached.

If no rule provides for the activity you wish to undertake, the discharge is *permitted* if it occurs from any non-industrial or non-trade premises (but note that the general duty of Section 17 of the RMA to avoid, remedy or mitigate any adverse effects still applies).

The rules contained in this Plan do not replace other legislation or regulations relating to discharges of contaminants to land. Individuals or organisations responsible for discharges to land should ensure their compliance with all other relevant legislation. Similarly, the rules in this Plan do not replace any code of practice, which has been adopted by industry to manage activities with the potential to release contaminants into or onto land by various industries. Rather, the rules complement industry codes of practice. However, in the event of any contradiction with any codes of practice, the Rules in the Plan prevail.

The rules contained in this Plan only relate to discharges of contaminants into or onto land. They do not cover other aspects of an operation, such as the discharge of waste water to a water body or the discharge of contaminants to air.

The rules in this Plan do not preclude the need to apply for any other relevant resource consents. For example, as well as requiring a resource consent to discharge agricultural effluent, an operation such as a piggery may also require a resource consent from the Regional Council to discharge contaminants to air, and may also require resource consents for land use from the relevant territorial authority.

Under Section 139 of the RMA a person who proposes or is carrying out a permitted activity, can apply to the consent authority for a certificate of compliance to show that the proposal or activity complies with the Plan in relation to the location. An administrative charge will apply to the issue of a certificate of compliance.

**IT IS IMPORTANT TO NOTE THAT THERE MAY BE PROVISIONS IN OTHER REGIONAL PLANS (INCLUDING REQUIREMENTS FOR RESOURCE CONSENTS) WHICH APPLY TO A PARTICULAR ACTIVITY, AND THEY SHOULD, THEREFORE, BE REFERRED TO BEFORE COMMENCING A PERMITTED ACTIVITY UNDER THIS PLAN**



<b>PERMITTED</b>	<b>PERMITTED</b>	<b>CONTROLLED</b>	<b>DISCRETIONARY</b>
<b>RULE 1</b> Stockpiling	<b>RULE 12</b> Application of Fertiliser	<b>RULE 15</b> Aerial Application of Vertebrate Pest Control Agrichemicals	<b>RULE 17</b> Stockpiling of Solid Materials
<b>RULE 2</b> Stockpiling of Roadworks Materials	<b>RULE 13</b> Land Application of Agricultural Effluent	<b>RULE 16</b> Discharge of Stormwater	<b>RULE 18</b> Solid Waste Disposal - Landfills
<b>RULE 3</b> Solid Waste Disposal	<b>RULE 14</b> Feed Lots and Wintering Pads		<b>RULE 19</b> Composting Operations
<b>RULE 4</b> Composting			<b>RULE 20</b> Discharge of Sewage Effluent to Land
<b>RULE 5</b> Discharge of Stormwater			<b>RULE 21</b> Discharge of Septage
<b>RULE 6</b> On-Site Discharge of Sewage Effluent			<b>RULE 22</b> Offal Pits
<b>RULE 7</b> Discharge From Pit Toilets			<b>RULE 23</b> Silage
<b>RULE 8</b> Silage and Silage Wrap			<b>RULE 24</b> Agricultural Effluent
<b>RULE 9</b> Offal Pits			<b>RULE 25</b> Discharge of Hazardous Wastes
<b>RULE 10</b> Application of Agrichemicals on Domestic Properties			<b>RULE 26</b> Contaminated Sites
<b>RULE 11</b> Application of Agrichemicals on Areas other than Domestic Properties			<b>RULE 27</b> Discharge of Waste Oil As A Dust Suppressant
			<b>RULE 28</b> General Discretionary Activities

**Figure 2: Regional Rules Table**

**IT IS IMPORTANT TO NOTE THAT THERE MAY BE PROVISIONS IN OTHER REGIONAL PLANS (INCLUDING REQUIREMENTS FOR RESOURCE CONSENTS) WHICH APPLY TO A PARTICULAR ACTIVITY, AND THEY SHOULD, THEREFORE, BE REFERRED TO BEFORE COMMENCING A PERMITTED ACTIVITY UNDER THIS PLAN**



## 10.2 PERMITTED ACTIVITIES

### RULE 1 STOCKPILING

Unless covered by Rule 2 the stockpiling of gravel, sand, rock, soil or coal is a **permitted activity**, provided that the following conditions are met:

- a) there is no discharge of contaminated runoff beyond the boundary of the subject property;
- b) the discharge is located and contained to ensure that neither the discharge nor any contaminant arising from the discharge is able to enter any water body or the coastal marine area.

#### **Advisory Note:**

Resource users should also refer to other Regional Plans.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (see Rule 17).

*See Rule 17*

*Explanation: This rule permits deposits of specified materials (gravel, coal, rock, soil and sand) to land, provided that adverse effects such as contaminated runoff are avoided. This rule includes stockpiles of any size at industrial or trade premises, production land and residential properties. The effect of this rule is to permit stockpiles which would otherwise require consent, where the adverse effects are able to be controlled. Stockpiling of materials during road construction and maintenance is excluded from this rule, as such stockpiles generally have minor effects and are temporary in nature (refer to Rule 2).*

*Any discharges to air or water from such deposits are not classed as discharges to land, and are, therefore, not covered by this rule. These will require separate discharge consents, and will be covered in Regional Plans that deal with Air Quality and Water Management.*

### RULE 2 STOCKPILING OF ROADWORKS MATERIALS

The stockpiling of material for road construction and maintenance is a **permitted activity**.

<b>RULE 3</b> <b>SOLID WASTE DISPOSAL</b>
--

The discharge of solid waste into or onto production land is a **permitted activity**, provided the following conditions are met:

- a) there is no contamination of groundwater, water bodies, or coastal water;
- b) the discharge consists only of solid waste generated on the subject property;
- c) the discharge does not contain:
  - Any hazardous substance or container used to store hazardous substances;
  - Any offal or carcasses;
  - Any septage or sludge;
  - Any agricultural effluent or sludge;
- d) there is no windblown litter from the subject property.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 18).

*See Rule 18*

*Explanation: Provided that solid waste disposal sites are suitably located, and do not contain contaminants such as offal, septage and the others listed above, they will have a minimal impact and as such should be allowed as a permitted activity. This rule applies to solid waste disposal on production land, provided that the discharge only contains wastes generated on that property.*

*Condition (a) applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*Condition (a) requires that there is no contamination of groundwater, water bodies or coastal water by any contaminants, but leaves the manner in which this is to be achieved to the discharger. For example, protection of groundwater could be achieved by leaving a buffer distance between the base of the disposal area and the highest groundwater level, or by using a liner in the disposal site.*

<b>RULE 4 COMPOSTING</b>
------------------------------

The discharge of any contaminants into or onto land in connection with composting operations on production land or for or from domestic composting operations, is a **permitted activity**, provided the following conditions are met:

- a) there is no contamination of groundwater, water bodies or coastal water;
- b) subject to condition (c), the discharge consists only of biodegradable wastes from that property;
- c) the discharge does not contain:
  - Any hazardous substance or container used to store hazardous substances;
  - Any offal or carcasses;
  - Any septage or sludge;
  - Any agricultural effluent or sludge;
- d) there is no windblown litter from the subject property.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 19).

See Rule 19

*Explanation: This rule applies to composting on production land and in residential areas, provided that the discharge only contains wastes generated on that property. The condition requiring the protection of groundwater, water bodies and coastal water leaves the manner in which this is to be achieved to the discharger. For example, this could be met by leaving a buffer distance between the base of the disposal area and the highest groundwater level, or by using a liner in the disposal site. Provided the activity meets the conditions specified, the adverse effects of the activity will be minor.*

*Condition (a) applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*For the purposes of this rule, 'composting operations' refers to operations where material is collected and brought together for the purposes of making compost.*

*This rule reflects the direction taken in the RPS, to promote the reduction of biological waste in the waste stream. Giving composting a permitted activity status supports this direction, and recognises the benefits of composting as a method of waste reduction in the discharge of solid waste to the environment.*

<b>RULE 5 DISCHARGE OF STORMWATER</b>
---

The discharge of stormwater into or onto land collected from any roof, yard, paved surface, (excluding roads and footpaths), grassed surface or other structure (other than from any area used for or exposed to hazardous substances), is a **permitted activity**, provided the following conditions are met:

- a) The discharge does not cause siltation, sedimentation or ponding beyond the boundary of the subject property;
- b) There is no contamination of water;
- c) The discharge does not contain any hazardous substances or wastes;
- d) The discharge does not contain human or agricultural effluent.

If an activity is unable to meet the condition of this Rule or other Rules, then it is either a **controlled** or **discretionary activity** (See Rules 16 and 28).

*See Rules 16 and 28*

*Explanation: This rule permits the point-source discharge of stormwater to land subject to certain conditions. It relates to the discharge of collected stormwater, and does not refer to diffuse runoff, for example, from roads and footpaths. For the purposes of Rule 5, roads include footpaths, berms, (grassed, cobbled, or otherwise formed and covered), kerbs and channels, dish drains, and road side drains in rural areas. The rule does not apply to discharges of stormwater into community reticulated stormwater disposal systems.*

*It is considered that the adverse effects of stormwater discharges are controlled through the requirement to meet the conditions placed on the activity.*

*Condition (b) applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*If the discharge cannot meet the conditions, a resource consent is required, which allows consideration of the adverse effects on a case-by-case basis. This rule covers discharges to land only, as discharges of stormwater into waterbodies will be dealt with in a water management plan.*

<b>RULE 6</b> <b>ON-SITE DISCHARGE OF SEWAGE EFFLUENT</b>
--

**For existing systems:**

The discharge of any sewage effluent into or onto land, other than septage, from on-site sewage treatment and disposal systems is a **permitted activity**, provided that the following conditions are met:

- a) the system is installed before the time of notification of this Plan (February 14 1998);
- b) the discharge is not offensive beyond the property boundary, and does not pose a risk to human health;
- c) the discharge does not exceed 2000 litres per day (calculated as a weekly average);
- d) there is no ponding, flooding, runoff, or surface breakout;
- e) no stormwater enters the system;
- f) there is no contamination of water.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 20).

*See Rule 20*

For existing systems which fail to comply with the 'permitted activity' category, system upgrades are obligatory within 6 months of this Plan becoming operative (unless the discharge causes a nuisance or poses a health risk<sup>1</sup>), or alternatively a resource consent must be obtained in respect of the activity.

**For systems installed after February 14 1998:**

The discharge of any sewage effluent into or onto land, other than septage, from on-site sewage treatment and disposal systems installed after February 14 1998, is a **permitted activity**, provided that the following conditions are met:

- a) the discharge does not exceed 2000 litres per day (calculated as a weekly average);
- b) the discharge is not within:
  - 50m of any water body;
  - 50m of any coastal water;
  - 100m of any bore or well used for potable water supply;
- c) the system is designed with a minimum of 24 hours effluent retention time;

<sup>1</sup> It should be noted that where any discharge occurs that causes a nuisance or poses a health risk, steps may be taken by Authorities other than the Regional Council, under other legislation such as the Health Act 1956, which may require the discharger to take **immediate action** to abate the nuisance or health risk.

- d) there is no ponding, flooding, runoff, or surface breakout;
- e) no stormwater enters the system;
- f) the discharge does not pose a risk to human health, and is not noxious, dangerous, offensive or objectionable to such an extent that it has or is likely to have an adverse effect on the environment;
- g) for systems which discharge *into* land, the system is designed to provide for even distribution of effluent to the entire filtration surface of the disposal field;
- h) for systems which discharge *onto* land:
  - The discharge is not by way of spray irrigation, or otherwise produces any aerosol discharge to air;
  - The effluent is evenly distributed over the entire area of the disposal field;
  - The effluent conforms to the following standard:
    - BOD<sub>5</sub> not greater than 70 mg/litre;
    - Suspended solids not greater than 30 mg/litre;
    - Faecal coliforms not more than 1000/100 mls.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (see Rule 20).

*See Rule 20*

#### Advisory Notes:

1. Discharges from pit privies are covered under Rule 7.
2. The Regional Council will accept as compliance with condition (f) an on-site sewage treatment and disposal system designed, constructed, operated and maintained in accordance with *The New Zealand Manual of Alternative Wastewater Treatment and Disposal Systems, Volume II, Part A: On-Site Wastewater Disposal From Households and Institutions* Technical Publication No 58, Second Edition (Gunn, 1994).
3. Condition (g) refers to both gravity-fed and dosed loading systems.

*Explanation: If these activities meet the conditions specified, then they are permitted as they are likely to have minimal environmental effects.*

*The conditions seek to protect water bodies from contamination by requiring minimum setback distances from water, and excluding any ponding, flooding, or runoff.*

*Condition (f) relating to existing systems installed before February 14 1998, requires no contamination of water. This applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*Specifying an upper limit on the volume of discharge (the volume stated is equivalent to the amount of effluent produced by a large household or approximately 10 people) allows for evaluation of effects through the resource consent process when greater volumes of discharges, with proportionately greater potential effects, are proposed.*



*The terms “noxious, dangerous, offensive or objectionable” are from Section 17 of the Resource Management Act 1991, and provide criteria to assess whether a sewage discharge is having a more than minor adverse environmental effect.*

*Discharges that occur outside the scope of these conditions require specific evaluation on a case-by-case basis to ensure that, if the activity is allowed, there are appropriate controls in place to prevent adverse effects on water quality and soils. Thus where compliance with the conditions is not possible, discharge becomes a discretionary activity requiring a resource consent.*

<b>RULE 7</b> <b>DISCHARGE FROM PIT TOILETS</b>
--

The discharge of any sewage into or onto land, other than septage, from pit toilets or long-drop toilets is a **permitted** activity, provided that the following conditions are met:

- a) the discharge does not exceed 400 litres per day (calculated as a weekly average);
- b) the toilet is not sited within:
  - i) 50m of any surface water body or coastal water;
  - ii) 100m horizontally of any bore or well used for potable water supply;
- c) no stormwater or runoff enters the system;
- d) effluent from the toilet does not enter any water body or coastal water;
- e) waste in the toilet does not accumulate to closer than 30cm to the ground surface;
- f) the discharge does not pose a risk to human health, and is not noxious, dangerous, offensive or objectionable to such an extent that it has or is likely to have an adverse effect on the environment.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary** activity (see Rule 20).

*See Rule 20*

*Explanation: If this activity meets the conditions specified, then it is likely to have no more than minor environmental effects. The setback distances in condition b) seek to protect water bodies from contamination by allowing for filtration and breakdown of contaminants to occur. Specifying a minimum distance from the ground surface avoids raw effluent being exposed during rainfall.*

*Specifying an upper limit on the volume of discharge (the volume stated is equivalent to the amount of effluent produced by approximately 50-60 people) allows for evaluation of effects through the resource consent process when greater volumes of discharges, with proportionately greater potential effects, are proposed.*

*Discharges that occur outside the scope of these conditions require specific evaluation on a case-by-case basis to ensure that, if the activity is allowed, there are appropriate controls in place to prevent adverse effects on water quality and soils. Thus, where compliance with the conditions is not possible, the discharge becomes a discretionary activity requiring a resource consent.*

<b>RULE 8 SILAGE AND SILAGE WRAP</b>
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The discharge of any contaminants into or onto land in connection with the storage of silage is a **permitted activity**, provided that the following conditions are met:

- a) there is no contamination of water, including groundwater and coastal water;
- b) silage wrap is disposed of by either high temperature (greater than 1000 degrees Fahrenheit) incineration, by burial on the subject property, or at a landfill.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 23).

*See Rule 23*

*Explanation: Provided that silage storage areas are located on a suitable site, are well constructed, and suitable precautions are taken in the production of silage, they will have a minimal impact and as such should be allowed as a permitted activity.*

*Condition (a) requires that there is no contamination of water by any contaminants, including groundwater and coastal water, but leaves the manner in which this is to be achieved to the discharger. For example, protection of groundwater could be achieved by using a liner at the storage site.*

*Condition (a) applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*The disposal of silage wrap is a significant issue throughout the Region, due to the quantities produced. If the wrap can be burnt at a sufficiently high temperature, emissions will only have a minor adverse effect. However, as there are currently no high temperature incinerators in the Region, burial on the subject property is another option.*

<b>RULE 9</b> <b>OFFAL PITS</b>
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The discharge of any contaminants into or onto land in connection with the disposal of offal on production land is a **permitted activity**, provided that the following conditions are met:

- a) no stormwater enters the pit;
- b) there is no contamination of water, including groundwater and coastal water;
- c) the discharge area is not within 50 metres of the subject property boundary;
- d) only offal produced on the property is disposed of on the property;
- e) the pit is securely covered or fenced and contains only offal or plant matter; and
- f) within twelve months of the activity ceasing, the discharge area is rehabilitated to a condition compatible with the surrounding land.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 22).

*See Rule 22*

*Explanation: Provided that offal pits are located on a suitable site, are not a threat to human or animal health, and are used solely for the disposal of offal, they will have a minimal impact and as such should be allowed as a permitted activity.*

*Condition (b) applies to discharges to land, which may result in contaminants entering water under Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

<p><b>RULE 10</b> <b>APPLICATION OF AGRICHEMICALS ON DOMESTIC PROPERTIES</b></p>
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The discharge of any agrichemical into or onto land from the use of any agrichemical within a domestic property is a **permitted activity** provided that the following conditions are met:

- a) the mixing and application of the agrichemical is undertaken in accordance with the manufacturer's instructions, at concentrations not exceeding manufacturers label recommendations;
- b) any agrichemical spray drift derived from the discharge is not noxious, dangerous, offensive or objectionable beyond the target area to such an extent that it has or is likely to have an adverse effect on the environment;
- c) the discharger is responsible for ensuring proper disposal of spray mixture and empty containers;
- d) The following effects do not arise in any surface water body, groundwater or coastal water:
  - (i) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
  - (ii) any conspicuous change in the colour or visual clarity;
  - (iii) any emission of objectionable odour;
  - (iv) the rendering of fresh water unsuitable for consumption by farm animals;
  - (v) any significant adverse effects on aquatic life.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (see Rule 28).

*See Rule 28*

*Explanation: A domestic property is defined as a property used primarily as a place of residence, whether occupied or not. This rule recognises that the adverse effects associated with the application of agrichemicals from ground based application on domestic properties is minor and, therefore, permits their use, subject to some conditions.*

*The conditions imposed are to ensure that there are no adverse effects off the property, such as spray drift or degradation of water quality as a result of spray drift or ground application. The Regional Council recognises that spray drift from domestic properties is likely to be minimal given the application methods, but includes the condition on spray drift as a precautionary measure.*

*The terms "noxious, dangerous, offensive or objectionable" are from Section 17 of the Resource Management Act 1991, and provide criteria to assess whether an agrichemical discharge is having a more than minor adverse environmental effect.*

*This rule does not apply to discharges of agrichemicals to control aquatic weeds, as this constitutes a direct discharge to water and is, therefore, not covered by this Plan.*

*Condition (d) applies to discharges to land which may result in contaminants entering water under Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

<p><b>RULE 11</b>  <b>APPLICATION OF AGRICHEMICALS ON AREAS OTHER THAN DOMESTIC PROPERTIES</b></p>
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The ground-based or aerial discharge of any agrichemical, other than those specified in Rule 15 (Aerial Application of Vertebrate Pest Control Agrichemicals), is a **permitted activity** provided that the following conditions are met:

- a) the mixing and application of the agrichemical is undertaken in accordance with the manufacturer's instructions, at concentrations not exceeding manufacturers label recommendations;
- b) if the agrichemical is applied by a ground-based commercial spray applicator (excluding commercial spray applicators applying vertebrate pest control chemicals), then the applicator holds or is supervised by a person who holds a current Growsafe™ Registered Chemical Applicators Certificate issued by the New Zealand Agrichemical Education Trust, and a copy of that current Growsafe certificate is produced to an enforcement officer of the Council on request;
- c) if the agrichemical is applied aerially by a commercial spray applicator (excluding commercial spray applicators applying vertebrate pest control chemicals), then the applicator holds a current Growsafe™ Agrichemical Pilots Rating Certificate issued by the New Zealand Agrichemical Education Trust, and a copy of that current Growsafe certificate is produced to an enforcement officer of the Council on request;
- d) the application is undertaken in accordance with Part 5 of the "Agrichemical Users' Code of Practice" (New Zealand Standard 8409:1995, New Zealand Agrichemical Education Trust, 1995);
- e) any agrichemical spray drift derived from the discharge is not noxious, dangerous, offensive or objectionable beyond the target area to such an extent that it has or is likely to have an adverse effect on the environment;
- f) the following effects do not arise in any surface water body, groundwater or coastal water:
  - (i) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
  - (ii) any conspicuous change in the colour or visual clarity;
  - (iii) any emission of objectionable odour;
  - (iv) the rendering of fresh water unsuitable for consumption by farm animals;
  - (v) any significant adverse effects on aquatic life.
- g) the discharger immediately notifies the Regional Council in the event of any accidental discharge of any agrichemical;
- h) for aerial applications of agrichemicals (excluding vertebrate pest control chemicals):
  - (i) The discharger keeps records of the type of each agrichemical applied, the volume and concentration of the agrichemical used, the locality and date of application and weather conditions,

- including wind speed and direction. A copy of any records is produced to an enforcement officer of the Council on request;
- (ii) Occupiers of residences, school buildings, and registered organic farms within the application area or immediately adjoining the application area shall be notified at least 48 hours and not more than 30 days prior to the commencement of the aerial application. Notification is not required if the owner, occupier or manager of the property to be sprayed has obtained written permission from these occupiers stating that notification is in some mutually agreed form or that notification is not required, and a copy of that written permission is produced to an enforcement officer of the Council on request;
  - (iii) The minimum distance between the downwind edge of the target area and any immediately adjoining residence, school building, or registered organic farm is 100 metres where there is a barrier to stop spray drift between the target zone and the affected site, and 300 metres where there is no such barrier;

and the following additional conditions for ground-based and aerial application of agrichemicals on **public amenity areas**:

- i) public notice is given of the intention to apply agrichemicals prior to carrying out the application. Public notice is to take place not greater than 12 months and at least one week prior to application, and is to state:
  - i) the areas to be sprayed;
  - ii) the approximate dates and times of spraying;
  - iii) the agrichemical(s) to be used;
  - iv) where or how further information about the application of the agrichemical can be obtained;
  - v) A record of this public notice is to be kept and made available to the West Coast Regional Council on request.
- j) condition i) does not apply to agricultural chemicals that are applied from the ground to less than one kilometre length of public road, continuously or intermittently.
- k) signage is used to clearly indicate agrichemical use:
  - Except for spraying along the verges of public roads, the discharger must place signs clearly visible to the public at points where the public commonly have entry to the area being sprayed. Signs must remain in place until the re-entry period for that particular chemical has expired;
  - Where spraying occurs along the verges of public roads, vehicles associated with the spraying must display signs (front and back).

**Advisory Notes:**

1. Provisions relating to the direct discharge of agrichemicals to water will be included in a Regional Water Management Plan.
2. Nothing in this Rule precludes persons from applying for a single Certificate of Compliance, or consent for discretionary activities, to cover multiple locations.



If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (see Rule 28). See Rule 28

*Explanation: This rule covers the discharge of agrichemicals to land from ground based and aerial application methods. The conditions stated in this rule are intended to avoid problems such as spray drift.*

*Conditions (b) and (c) require commercial spray applicators, defined in this Plan as spray applicators who trade for hire or reward, to hold Growsafe™ Certificates issued by the New Zealand Agrichemical Education Trust. This is a reflection of the frequency with which these operators apply agrichemicals. Other ground-based applicators are likely to include farmers. Non-commercial ground-based applicators are excluded from the requirement for certification on the basis that non-commercial spraying is usually localised, small scale, less frequent and, therefore, carries less risk of more than minor adverse effects occurring. However, the Regional Council recommends that all applicators of agrichemicals attend the appropriate training courses.*

*The terms “noxious, dangerous, offensive or objectionable” in condition e) are from Section 17 of the Resource Management Act 1991, and provide criteria to assess whether an agrichemical discharge is having a more than minor adverse environmental effect.*

*This rule does not apply to discharges for the control of aquatic weeds, as these constitute discharge to water and are, therefore, not covered by this Plan (refer Note above).*

*Condition (f) is intended to avoid discharges to land which may result in contaminants entering water under Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan. The condition reflects the wording of the Act.*

*Condition h) for notification and a buffer zone are to minimise adverse effects of spray drift from aerial spraying on sensitive sites considered to be more at risk. A barrier for spray drift includes, for example, a shelter belt of thick, leafy vegetation at least 3 metres high and 1 metre thick.*

*The application of agrichemicals on public amenity areas has been given additional conditions in this rule, because of the potential adverse effects on human health from contact with agrichemicals in these areas. For this reason conditions (i) to (k) have been imposed. A definition of public amenity areas is given in the Glossary section of this Plan.*

*The Regional Air Quality Plan does not cover discharges of agrichemicals. Agrichemical use is addressed in this Regional Plan for Discharges to Land rather than the Regional Air Quality Plan because it is not seen as a significant regional air quality issue for the region. Rather, the adverse effects of such discharges occur on land as the ultimate receiving environment.*

<b>RULE 12</b> <b>APPLICATION OF FERTILISER</b>
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The discharge of fertiliser<sup>1</sup> into or onto land is a **permitted activity** provided that the following conditions are met:

- a) there is no contamination of water; and
- b) any drift derived from the discharge is not noxious, dangerous, offensive or objectionable beyond the target area to such an extent that it has or is likely to have an adverse effect on the environment;
- c) any discharge of whey as a fertiliser meets the following additional conditions:
  - (i) there is no runoff into water bodies, drains, groundwater or coastal water;
  - (ii) there is no ponding or pasture burning;
  - (iii) the application rate of any combination of whey, agricultural effluent, sludge, and wastewater does not exceed the equivalent of 275kgN/ha/year.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 28).

*See Rule 28*

*Explanation: In making the application of fertilisers a permitted activity, the Regional Council recognises that the adverse effects associated with the activity are minor and can be controlled through the conditions imposed. Condition (a) is intended to avoid discharges to land which may result in contaminants entering water under Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*Condition (b) is included to ensure that fertiliser does not drift beyond the targeted area and cause adverse effects. The terms “noxious, dangerous, offensive or objectionable” are from Section 17 of the Resource Management Act 1991, and provide criteria to assess whether a fertiliser discharge is having a more than minor adverse environmental effect.*

*Condition (c) is intended to avoid potentially greater impacts from the application of whey, which differs from manufactured fertilisers in that it has a higher Biological Oxygen Demand (BOD).*

*The maximum nitrogen application rate in condition (c) is set to be consistent with the maximum rate referred to under Rule 13, condition (d) for agricultural effluent discharges. Whey, agricultural effluent, sludge and wastewater are slow-release nitrogen fertilisers (compared with manufactured quick-release nitrogen fertilisers), and greater care is needed with their application to avoid nitrate contamination from over-application. Nitrate contamination of water bodies can cause algae blooms, which reduces the amount of oxygen in the water and adversely affects fish habitat.*

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<sup>1</sup> The definition of ‘fertiliser’ is contained in Appendix 1: Glossary

<b>RULE 13</b> <b>LAND APPLICATION OF AGRICULTURAL EFFLUENT</b>
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The discharge of agricultural effluent into or onto land is a **permitted activity** provided that the following conditions are met:

- a) there is no runoff of agricultural effluent into water bodies, drains, groundwater or coastal water;
- b) there is no ponding, flooding and pasture burning;
- c) notwithstanding condition (a), no dairy farm, piggery, or poultry farm effluent is discharged within:
  - (i) 100 metres of any well or bore used for potable water supply or stock water supply;
  - (ii) 20m of any water body;
  - (iii) 20m of any drain;
  - (iv) 20m of any adjoining property;
- d) the application rate from any combination of sludge accumulated from treatment facilities, storage facilities, agricultural effluent, wastewater and whey is at a rate not exceeding the equivalent of 275kgN/ha/year;
- e) sludge accumulated from storage facilities is not applied to land at a depth greater than 20 millimetres (200m<sup>3</sup>/ha/yr);
- f) there are contingency measures in place to ensure that there is no contravention of these conditions in the event of pump or other system failure, or unsuitable soil conditions;
- g) a financial contribution is paid to the West Coast Regional Council before 30 June each year. This amount shall be determined in accordance with the West Coast Regional Council's Schedule of Charges. For the year 2000/2001 it shall not exceed \$50. Any future increase in this fee shall not exceed the rate of the Consumer Price Index. The charges relate to the following purposes:
  - (a) the cost of monitoring and inspecting agricultural effluent disposal systems;
  - (b) cost of administering and managing the Regional Council's database;
  - (c) cost of the Regional Council's response to minor non-compliance issues by means of correspondence and educational material;
  - (d) cost of specific scientific investigations undertaken by or on behalf of the Regional Council into the effects of application of agricultural effluent to land.

**Advisory Note:**

This rule applies only to discharges to land. There are additional requirements to control odour effects from agricultural effluent discharges to air in the Regional Air Quality Plan, and that Plan should be consulted.

If an activity is unable to comply with the conditions of this Rule, then it is a **discretionary activity** (See Rule 24).

*Explanation: Discharges from dairy sheds, piggeries and poultry farms to land are permitted activities subject to compliance with conditions. Region-specific information on their potential effects is limited and the high intensity rainfall and characteristically high or perched water tables of the region could result in adverse effects if the activity was permitted with no controls.*

*By making these discharges permitted rather than controlled, the Regional Council is providing an incentive to dispose of effluent onto land rather than into water, which has higher potential for adverse effects. The conditions also provide certainty for the applicant of what is required to reduce the risk of potential soil and water contamination from agricultural effluent discharges to land.*

*This rule applies to agricultural effluent which is collected and discharged from a point source into or onto land. The rule does not apply to the discharge of effluent in an unmanaged or unconfined situation where the volume and effects of the effluent are such that it does not require collection and disposal (e.g. discharges from individual animals such as house cows). This rule only covers discharges onto land from oxidation ponds, other storage facilities or sumps.*

*This rule does not require resource consents to be obtained for discharges to ponds or sumps and discharges from ponds or sumps, provided the conditions are complied with.*

*Condition a) is intended to avoid discharges to land which may result in contaminants entering water under Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*The maximum nitrogen application rate in condition (d) is set to be consistent with the maximum rate referred to under Rule 12, condition (c) for fertiliser discharges. Whey, agricultural effluent, sludge and wastewater are slow-release nitrogen fertilisers (compared with manufactured quick-release nitrogen fertilisers), and greater care is needed with their application to avoid nitrate contamination from over-application.*

*Condition e) is to avoid uneven or excessive application of sludge, which has a greater risk of contamination or pasture burning as it is a more concentrated form of effluent.*

*The requirement for contingency measures is for situations including heavy continuous rainfall, system failure or simply when soils are too wet, through poor drainage. Excessive rainfall will cause either short circuiting of the biological breakdown processes within the soil (ie effluent passes directly to the water table) resulting in increased nitrate and faecal coliform levels in groundwater, or accelerated surface runoff and consequent pollution of*

*surface water where untreated effluent enters waterbodies.*

*Good practice guidelines such as how to calculate whether the maximum nitrogen application rate is being met, maximum depth of effluent to be applied, and adequate storage for herd size can be obtained from the Regional Council.*

*Under Sections 2 and 108(a) of the Resource Management Act permitted activities can have conditions requiring a financial contribution for purposes specified in the Plan. The financial contribution will go towards the costs of inspection, administration, education and investigation. Information gained from the monitoring programme will be used to assess the nature and scale of effects.*

*Site-specific conditions will be established on resource consents for activities which are not able to comply with the conditions listed in the rule.*

**RULE 14**  
**FEED LOTS AND WINTERING PADS**

The discharge of contaminants into or onto land at or from any feed lot, stand-off pad or wintering pad is a **permitted activity** provided that the following conditions are met:

- a) the discharge is not within:
  - (i) 50 metres of any surface water body or coastal water;
  - (ii) 100 metres of any bore or well used for potable water supply or stock water supply;
- b) notwithstanding condition (a), there is no contamination of water bodies, groundwater or coastal water.

If an activity is unable to meet the conditions of this Rule, then it is a **discretionary activity** (See Rule 28).

See Rule 28

*Explanation: This rule is intended to permit discharges that have only minor adverse effects. Potentially significant adverse effects can occur when increased volumes of animal excrement produced in a confined area are not collected, for example, by sawdust absorption or effluent drainage, but are discharged with concentrated nitrogen levels directly into water bodies or onto land situated too close to water bodies. The discharge of animal excrement from wintering/stand-off pads and feed lots in accordance with conditions will have no more than minor adverse effects on both natural and human use values of waterbodies, or on any other person. Buffer zones have been utilised to avoid adverse effects on water as well as human health. The rule applies to both existing and new wintering/stand-off pads and feed lots.*

## 10.3 CONTROLLED ACTIVITIES

### RULE 15 AERIAL APPLICATION OF VERTEBRATE PEST CONTROL AGRICHEMICALS

The aerial discharge onto land of any vertebrate pest control agrichemical specified in Appendix 2 of this Plan is a **controlled activity**, and shall comply with the following standards and terms:

*See Appendix 2*

- a) all residents and occupiers of school buildings within the application area or immediately adjoining the application area are notified at least 48 hours prior to the commencement of the aerial operation;
- b) the discharger immediately notifies the West Coast Regional Council in the event of any accidental discharge of any agrichemical;
- c) a 100 metre buffer is maintained between the area of application and the boundary of the subject property and between the area of application and any house site;
- d) notification of the aerial operation in the local paper occurs at least 14 days prior to the work commencing;
- e) signs are posted notifying the public of the application of agrichemicals in public access areas including roads, walking tracks and access along creeks and rivers;
- f) the applicator holds a current Growsafe™ Agrichemical Pilots Rating Certificate issued by the New Zealand Agrichemical Education Trust, and a copy of that current Growsafe certificate is produced to an enforcement officer of the Council on request;
- g) the application is undertaken in accordance with Part 5 of the "Agrichemical Users' Code of Practice" (New Zealand Standard 8409:1995, New Zealand Agrichemical Education Trust, 1995).
- h) any agrichemical spray drift derived from the discharge is not noxious, dangerous, offensive or objectionable beyond the target area to such an extent that it has or is likely to have an adverse effect on the environment.

The Regional Council has reserved control over the following matters:

- a) the nature of the chemical to be applied;
- b) method, rate and concentration of application;
- c) buffer zones;
- d) form and content of notification;
- e) timing of operations in relation to weather conditions;
- f) location of signs;
- g) monitoring requirements;
- h) the duration of the resource consent;
- i) review conditions of the resource consent.

**Applying for a Resource Consent**

An application for a resource consent under Rule 15 shall be made in the prescribed form, and shall include matters set out in 1-4 of Section 12.1 of this Plan.

*See Section 12.1*

If an activity is unable to comply with the standards and terms of this Rule, then it is a **discretionary activity** (see Rule 28).

*See Rule 28*

*Explanation: Subject to good practice the aerial application of agrichemicals for vertebrate pest control is likely to have minimal adverse environmental effects. However, given that there is potential for adverse effects to occur from such aerial operations, for example, on other wildlife and domestic species, the activity has a controlled status. This allows the Regional Council to assess the effects of the activity on a case-by case basis and establish conditions relative to any identified constraints.*

*Currently in the West Coast Region, sodium monofluoroacetate (1080) is the only vertebrate pest control chemical applied by aerial means, and is solely used for possum control. In addition to complying with the rules in this Plan, users of 1080 and other “controlled pesticides” are also subject to the relevant approvals under other Acts.*

*The terms “noxious, dangerous, offensive or objectionable” in condition h) are from Section 17 of the Resource Management Act 1991, and provide criteria to assess whether an aerial agrichemical discharge is having a more than minor adverse environmental effect.*

*The form and content of notification in matter d) which Council has reserved control over refers to contacting residences, schools and any other potentially affected parties, and what goes in the newspaper as required in conditions d), e) and f).*



**RULE 16**  
**DISCHARGE OF STORMWATER**

The discharge of any contaminant onto or into land in connection with the discharge of stormwater is a **controlled activity** unless permitted by Rule 5, and shall comply with the following standards and terms:

- a) there is no direct runoff into, or contamination of, water bodies, groundwater or coastal water;
- b) the discharge does not cause siltation, sedimentation, erosion, scouring, ponding, or flooding;
- c) stormwater runoff from the facility or site containing hazardous substances is collected and discharged via a containment and treatment device or system.

The Regional Council has reserved control over the following matters:

- a) the location, method, rate, and quality of the stormwater discharge;
- b) design and operation of the treatment system;
- c) effects of the discharge on the receiving environment;
- d) stormwater management and spill contingency plans;
- e) monitoring requirements;
- f) the duration of the resource consent;
- g) review conditions of the resource consent.

**Applying for a Resource Consent**

An application for a resource consent under Rule 16 shall be made in the prescribed form, and shall include matters set out in 1-4 of Section 12.1 of this Plan.

*See Section 12.1*

Subject to Section 94(5) of the Resource Management Act 1991, applications for resource consents under Rule 16 may be considered without notification or the need to obtain the written approval of any person.

If an activity is unable to comply with the standards and terms of this Rule, then it is a **discretionary activity** (see Rule 28).

*See Rule 28*

*Explanation: Subject to using appropriate technology to contain and remove contaminants from the runoff, the discharge of stormwater to land is likely to have minimal adverse environmental effects. However, given that there is potential for adverse effects to occur, for example, from poorly located points of discharge, the activity has a controlled status. This allows the Regional Council to assess the effects of the activity on a case-by case basis and establish conditions relative to any identified constraints, such as the proximity to surface water bodies or groundwater.*

*Condition a) applies to discharges to land which may result in contaminants entering water as per Section 15(1)(b) of the Resource Management Act. Direct discharges to water are not covered by this Plan.*

*The rule does not apply to discharges of stormwater from these sites into community reticulated stormwater disposal systems.*

## 10.4 DISCRETIONARY ACTIVITIES

### **RULE 17 STOCKPILING OF SOLID MATERIALS**

The stockpiling of gravel, rock, sand, soil or coal on land is a **discretionary activity** unless permitted under Rule 1 or Rule 2 of this Plan.

*See Rules 1 and 2*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or any runoff.
- b) Operational and management procedures.
- c) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- d) The location of the facility relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- e) Monitoring provisions.
- f) Review conditions of resource consents.
- g) Duration of the resource consent.
- h) Establishment of a bond.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 17 shall be made in the prescribed form, and shall include the matters set out in Section 12.1 of this Plan.

*See Section 12.1*

*Explanation: Stockpiles that cannot meet the conditions of Rule 1 (Stockpiling) or Rule 2 (Stockpiling of Roadworks Materials) have the potential to cause significant adverse effects where contaminated runoff cannot be contained within the property boundary. In order to minimise the potential for adverse effects, it is necessary for the Regional Council to ensure that certain conditions are adhered to via resource consents. Other resource consents to control discharges to air or water may also be required.*

<b>RULE 18</b> <b>SOLID WASTE DISPOSAL - LANDFILLS</b>
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The disposal of solid wastes at any landfill, other than in accordance with Rules 1, 3 & 17, is a **discretionary activity**.

*See Rules 1, 3 and 17*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or any leachate produced.
- b) The types of wastes to be disposed of at the facility.
- c) Operational and management procedures.
- d) Provisions for the development of alternative waste disposal options.
- e) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- f) Measures the applicant will take to implement waste minimisation procedures on site.
- g) The storage and disposal of hazardous substances at the facility.
- h) The location of the facility relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- i) After-care and rehabilitation of the facility following closure
- j) Monitoring provisions.
- k) Review conditions of resource consents.
- l) Duration of the resource consent.
- m) Establishment of a bond.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 18 shall be made in the prescribed form, and shall include:

1. The matters set out in Section 12.1 of this Plan;
2. A Landfill Management Plan, to be prepared in accordance with Appendix 3.0; and
3. A written discussion of the justification for the approach taken to the construction, management and operation of the site, including the relevance of these measures to the Ministry for the Environment Landfill Guidelines (1992).

*See Section 12.1  
See Appendix 3.0*

*Explanation: Due to the nature of the activity, landfills have the potential to impact upon the environment. In order to minimise this impact it is necessary for the Regional Council to ensure that certain conditions are adhered to via resource consents. This will reduce any adverse environmental effects and assist in the protection of public health.*

<b>RULE 19</b> <b>COMPOSTING OPERATIONS</b>
--

The discharge of any contaminants into or onto land from composting operations or biodegradable wastes is a **discretionary activity**, unless permitted under Rule 4 (Composting ) of this Plan.

*See Rule 4*

#### Assessment Matters

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but are not be limited to, the following:

- a) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants.
- b) The types of wastes to be composted.
- c) Operational and management procedures.
- d) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- e) The location of the facility relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- f) After-care and rehabilitation after closure of facility.
- g) Monitoring provisions.
- h) Review conditions of resource consents.
- i) Duration of the resource consent.
- j) Establishment of a bond.

#### Applying for a Resource Consent

An application for a resource consent under Rule 19 shall be made in the prescribed form, and shall include the matters set out in Section 12.1 of this Plan.

*See Section 12.1*

*Explanation: "Composting" is defined as the biological reduction of biodegradable waste to a relatively stable product (see Appendix 1). For the purposes of this rule, 'composting operations' refers to operations where material is collected and brought together for the purposes of making compost. Discharges from composting activities, other than those associated with farm or domestic operations, are generally on a large scale and may have significant adverse effects, especially on water quality. Case-by-case control is, therefore, required. This rule includes all such biodegradable waste materials, such as sawdust that is stockpiled at premises other than farms or domestic properties.*

<b>RULE 20</b> <b>DISCHARGE OF SEWAGE EFFLUENT TO LAND</b>
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The discharge into or onto land of sewage (excluding septage) and sewage effluent from sewage treatment and disposal systems or pit toilets, other than those discharges permitted under Rule 6 (On-Site Discharge of Sewage Effluent) or Rule 7 (Discharges from Pit Toilets), is a **discretionary activity**.

*See Rules 6 and 7*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) The sensitivity of the receiving environment and the proximity of the discharge to waterbodies and the coastal marine area.
- b) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, public health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or the subsequent production of leachate.
- c) Effluent collection, disposal and treatment systems.
- d) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- e) Cumulative effects arising from proximity of other discharges to land.
- f) The location of the discharge relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- g) Operational and management procedures.
- h) Monitoring requirements, charges for monitoring and inspections.
- i) Review of conditions of resource consents.
- j) Duration of the resource consent.
- k) Establishment of a bond.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 20 shall be made in the prescribed form, and shall include:

1. The matters set out in section 12.1 of the Plan;
2. The results of a site investigation, carried out in accordance with Appendix 4.0.

*See Section 12.1*

*See Appendix 4.0*

*Explanation: This rule applies to discharges to land of sewage from on-site treatment and disposal systems and pit toilets that are unable to meet the requirements of Rules 6 and 7, and also to discharges from other treatment and disposal systems such as reticulated or community schemes. These discharges have the potential to cause significant adverse effects, particularly on water quality. For this reason a precautionary approach has been taken, and applications will be considered on a case-by-case basis.*



<b>RULE 21</b> <b>DISCHARGE OF SEPTAGE</b>
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The discharge into or onto land of any septage from on-site sewage treatment and disposal systems is a **discretionary activity**.

### Assessment Matters

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) The sensitivity of the receiving environment and the proximity of the discharge to waterbodies and the coastal marine area.
- b) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, public health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or the subsequent production of leachate.
- c) Cumulative effects arising from proximity of other discharges to land.
- d) The location of the discharge relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- e) Operational and management procedures.
- f) Monitoring requirements, charges for monitoring and inspections.
- g) Review of conditions of resource consents.
- h) Duration of the resource consent.
- i) Establishment of a bond.

### Applying for a Resource Consent

An application for a resource consent under Rule 21 shall be made in the prescribed form, and shall include:

1. The matters set out in section 12.1 of the Plan;
2. The results of a site investigation, carried out in accordance with Appendix 4.0.

*See Section 12.1*  
*See Appendix 4.0*

*Explanation: Discharges to land of septage have the potential to cause significant adverse effects, particularly on human health and water quality, due to higher concentrations of pathogens and heavy metals. For this reason a precautionary approach been taken, and applications will be considered on a case-by-case basis in relation to identified site constraints.*

<b>RULE 22</b> <b>OFFAL PITS</b>
-------------------------------------

The discharge of contaminants into or onto land in connection with the disposal of offal, other than the discharges permitted under Rule 9 (Offal Pits), is a **discretionary activity**.

*See Rule 9*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or the subsequent production of leachate.
- b) Operational and management procedures.
- c) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- d) The location of the facility relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- e) Monitoring provisions.
- f) Review conditions of resource consents.
- g) Duration of the resource consent.
- h) Establishment of a bond.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 22 shall be made in the prescribed form, and shall include the matters set out in Section 12.1 of this Plan.

*See Section 12.1*

*Explanation: Offal pits, other than those permitted under Rule 9, have the potential to cause significant adverse effects on water quality, amenity values and human health. It is, therefore, appropriate for the Regional Council to have discretion over the granting of resource consents for this activity. If the nature or location of an offal pit is such that it may impact on the environment or on public health, it is necessary for the Regional Council to retain this control through the resource consent process, in order to minimise any such impact.*

<b>RULE 23</b> <b>SILAGE</b>
---------------------------------

The discharge of contaminants into or onto land in connection with the storage of silage, other than the discharges permitted under Rule 8 (Silage and Silage Wrap), is a **discretionary activity**.

*See Rule 8*

#### Assessment Matters

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) Provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants or the subsequent production of leachate.
- b) Operational and management procedures.
- c) Design and construction standards as they relate to any actual or potential discharge of contaminants.
- d) The location of the facility relative to:
  - Sites of significance to Poutini Ngai Tahu;
  - The distance to any dwelling or public facility not on the site;
  - Sites registered under the Historic Places Act 1993;
  - Sites of high natural or recreational value.
- e) Monitoring provisions.
- f) Review conditions of resource consents.
- g) Duration of the resource consent.
- h) Establishment of a bond.

#### Applying for a Resource Consent

An application for a resource consent under Rule 23 shall be made in the prescribed form, and shall include the matters set out in Section 12.1 of this Plan.

*See Section 12.1*

*Explanation: Silage leachate is one of the most concentrated agricultural contaminants. Discharges from silage storage areas that cannot meet the conditions of Rule 8 have the potential to cause significant adverse effects on water quality, amenity values and human health. It is, therefore, appropriate for the Regional Council to have discretion over the granting of resource consents for this activity.*

<b>RULE 24</b> <b>AGRICULTURAL EFFLUENT</b>
--

Except as provided for in Rule 13, the discharge of agricultural effluent to land is a **discretionary activity**.

*See Rule 13*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include, but not be limited to, the following:

- a) The sensitivity of the receiving environment and the proximity of the discharge to waterbodies and the coastal marine area.
- b) The provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health, plants, animals and ecosystems, that may arise from the discharge of contaminants.
- c) The method and rate of effluent application, extent of effluent distribution and rate of nutrient loading.
- d) Provisions for desludging the system and applying sludge to land.
- e) Size and construction of treatment and storage facilities.
- f) Monitoring requirements, charges for monitoring and inspections.
- g) Review conditions of resource consents.
- h) Duration of the resource consent.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 24 shall be made in the prescribed form, and shall include:

1. The matters set out in Section 12.1 of this Plan.
2. The number of livestock using the facilities (including any planned growth in livestock numbers) and the volume of effluent produced by the system.
3. A description of the effluent collection, storage, treatment (including washdown and cooling water) and disposal system, including rate and depth of effluent application and maintenance schedules and monitoring.

*See Section 12.1*

*Explanation: This rule applies to agricultural effluent which is collected and discharged from a point source into or onto land. For the purposes of this rule, a point source includes a discharge from oxidation ponds, sumps (ie collection facilities), mobile irrigators, mobile effluent tanks, and tanker spreaders. It specifically excludes stock trucks.*

*The discharges of agricultural effluent to land which are unable to meet the requirements of Rule 13 have the potential to cause significant adverse effects, particularly on water quality. For this reason a precautionary approach has been taken, and applications will be considered on a case-by-case basis.*

<b>RULE 25</b> <b>DISCHARGE OF HAZARDOUS WASTES</b>
--

The discharge of any hazardous wastes<sup>1</sup> into or onto land which is not provided for by any other Rule in this Plan, is a **discretionary activity**.

*See also Chapter 8.0*

#### **Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include but not be limited to, the following:

- a) Identification of potential hazards and exposure pathways and the acceptability of any risks to the environment.
- b) The provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants.
- c) Management and operational standards, including contingency provisions and maintenance programmes.
- d) Design and construction standards, including the provision of bunds and sealing as they relate to any actual or potential discharge of contaminants.
- e) Monitoring provisions.
- f) Review conditions of resource consents.
- g) Duration of resource consents.
- h) Establishment of a bond.
- i) The characteristics, composition and volume of wastes being discharged and of any likely by-products occurring from the degradation of these wastes.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 25 shall be made in the prescribed form, and shall include:

1. The matters set out in Section 12.1 of the Plan.
2. An assessment of effects in accordance with the Fourth Schedule of the Resource Management Act 1991.

*See Section 12.1*

*Explanation: Hazardous wastes have the potential to generate harmful and long term effects on the environment. Hazardous wastes that are covered by this rule include chemicals and poisons that are no longer required, and wastewater or sludge from processes using hazardous substances, such as timber treatment chemicals. Because of the degree of risk involved, the Regional Council needs to consider such discharges on a case-by-case basis and to exercise discretion in granting the appropriate resource consents.*

<sup>1</sup> The definition of 'hazardous waste' is contained in Appendix 1: Interpretation

<b>RULE 26</b> <b>CONTAMINATED SITES</b>
---

The discharge of any contaminants into or onto land from a contaminated site is a **restricted discretionary activity**.

**Advisory Note:**

The rule does not apply to the movement of contaminated material on-site, including the movement of contaminants as part of remediation activities. Where there is no discharge of contaminants off-site the rule does not apply. Remediation activities inside the boundary of a contaminated site may be subject to a separate regulatory framework, including any other relevant plans.

**Assessment Matters**

In the consideration of an application for a resource consent the matters to which the Regional Council had restricted the exercise of its discretion are:

- a) Potential hazards and exposure pathways and the acceptability of any risks to the environment,
- b) Adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants,
- c) Management standards, including contingency provisions,
- d) Monitoring and reporting provisions,
- e) Establishment of a bond,
- f) The duration of the consent,
- g) Review conditions of resource consents.

**Applying for a Resource Consent**

An application for a resource consent under Rule 26 shall be made in the prescribed form, and shall include matters set out in 1 - 4 of Section 12.1 of the Plan.

Subject to Section 94(5) of the Resource Management Act 1991, applications for resource consents under Rule 26 may be considered without notification or the need to obtain the written approval of any person.

*Explanation: This rule applies to confirmed contaminated sites and focuses on off-site discharges of contaminants from contaminated sites. Contaminants can spread to other sites due to migration through soil, natural underground water movement and land topography if no proactive remediation or mitigation is undertaken to reduce those contaminant levels or to prevent or control migration of contaminants.*

*See Section 12.1*

*A contaminated site means a site at which hazardous substances occur at concentrations above background levels and where assessment indicates it poses or is likely to pose an immediate or long-term hazard to human health or the environment.*

*Where risk assessment of the subject site demonstrates that the level of contamination does not pose an immediate or long term hazard to human health or the environment, a resource consent will not be required under this rule.*

*Recognised guidelines for identifying contaminated sites will be taken into account as part of the risk assessment.*

*Discharges from contaminated sites are classed as restricted discretionary activities to ensure that any contaminated sites, which pose a high level of risk are adequately remediated, managed or safely closed down. This will be assessed on a case-by-case basis in the resource consent process.*

*The rule does not apply to the movement of contaminated material to or at another location for removal or disposal.*

*The aim of remediation is to avoid, remedy or mitigate adverse effects of discharges, and these activities should, therefore, reduce the risk of adverse effects occurring off-site. Remediation should be carried out in accordance with relevant ANZECC guidelines for site management and cleanup. Appropriate remediation can be determined by assessment during the contaminated site investigation process.*

**RULE 27**  
**DISCHARGE OF WASTE OIL AS A DUST SUPPRESSANT**

Notwithstanding other Rules in this Plan, the discharge of waste oil or substances containing waste oil onto land for the purposes of dust suppression, is a **discretionary activity**.

**Assessment Matters**

The matters to be considered by the Regional Council when exercising its discretion to grant resource consent may include but not be limited to, the following:

- a) The source, composition, rate and volumes of waste oil being discharged.
- b) Extent and location of discharge.
- c) Identification of potential hazards and exposure pathways and the acceptability of any risks to the environment.
- d) The provisions adopted to avoid, remedy or mitigate any adverse effects on surface water, groundwater, soil, human health and the health of plants, animals and ecosystems that may arise from the discharge of contaminants.
- e) Method and timing of discharge in relation to weather conditions.
- f) Management standards, including contingency provisions for accidental discharges.
- g) Monitoring provisions.
- h) Review conditions of resource consents.
- i) Duration of resource consents.

**Applying for a Resource Consent**

An application for a resource consent under Rule 28 shall be made in the prescribed form, and shall include:

1. The matters set out in Section 12.1 of the Plan.
2. Information on the composition of the waste oil.
3. An assessment of effects in accordance with the Fourth Schedule of the Resource Management Act 1991.

*Explanation: Some types of waste oil, if carefully screened and applied, can be used as a dust suppressant, given that road dust itself may have impacts on human health and amenity values. Some waste oil may contain contaminants with acceptable low levels of toxicity. Many of the contaminants can be filtered or chemically removed, making the oil suitable for use as a dust suppressant.*

*See Section 12.1*



*The use of waste oil or used lubricated oil as a dust suppressant can be of environmental concern due to the volume and content of waste generated from trade and industry, and domestic sources. Inappropriate use and disposal has the potential to contaminate soils, groundwater, surface water, sediment and dust particles. There are also toxicity problems from oils with a high lead content, as these may lead to public health hazards.*

*Discretionary activity status allows proposed activities to be assessed on a case by case basis, taking into account the scale of potential adverse effects, and whether they can be satisfactorily avoided, remedied or mitigated, for example, by filtering contaminants out and controlling application rates. To avoid the creation of new contaminated sites, information is needed on the contents of the oil with any consent application.*

*This rule covers the point-source discharge of collected waste oil for the purposes of dust suppression. It does not relate to diffuse runoff that may contain oil.*

*As alternative uses to dust suppression, waste oil can be returned to some service stations within the region for recycling, or be used as fuel by certain industries within the region.*

<b>RULE 28</b> <b>GENERAL DISCRETIONARY ACTIVITIES</b>
---

The discharge of contaminants into or onto land from:

- Any industrial or trade premise that is not specifically provided for by any rule within this Plan; or
- Any activity that contravenes the conditions for a permitted activity, and is not provided for by any other rule within this Plan,

is a **discretionary activity**.

#### **Applying for a Resource Consent**

An application for a resource consent under Rule 28 shall be made in the prescribed form, and shall include:

1. The matters set out in Section 12.1 of the Plan.
2. An assessment of effects in accordance with the Fourth Schedule of the Resource Management Act 1991.

*See Section 12.1*

*Explanation: Section 15(1)(d) of the RMA contains a presumption that, unless a regulation or a rule in a plan provides to the contrary, all discharges to land from industrial or trade premises require a resource consent. This rule applies to discharges from these premises that do not come within the scope of the preceding rules.*

*Activities that fall outside the scope of the permitted activity rules and that are not covered by other provisions in this Plan will also be considered under this rule.*

*By classifying these discharges as discretionary, the Regional Council retains the ability to grant or decline a consent in accordance with the principles and objectives that are contained in the RMA and in the Plan. This approach allows for flexibility in managing discharges from industrial or trade premises, or discharges that cannot meet the permitted activity conditions, while retaining sufficient certainty for resource users.*

## Chapter 11

# RESOURCE CONSENT PROCEDURES

### 11.1 MAKING AN APPLICATION

Resource consents to undertake an activity described in this Plan (excluding Permitted Activities and Prohibited Activities) must be obtained from the Regional Council. Application forms are available from the Greymouth office. Enquiries and correspondence can be directed to the Regulation and Consent Division, West Coast Regional Council, P O Box 66, Greymouth, or by phoning the Regional Council on (03)768 0466, or toll free: 0508 800 118.

### 11.2 RESOURCE CONSENTS

A resource consent is a consent to do something (other than in the coastal marine area) that otherwise would contravene Section 15 of the RMA. Discharges onto or into land have been classified into activity types according to the level of environmental effects they are likely to cause. These activities are defined by the RMA (and in Appendix 1.0) and are described below:

**Permitted Activities:** allowed without a resource consent if it complies in all respects with any conditions specified in the Plan. Council can issue a Certificate of Compliance to confirm that a proposed activity complies with the permitted activity Rules of the Plan in relation to that location.

**Controlled Activities:** allowed only if a resource consent is obtained and it complies with standards and terms specified in the Plan. Regional Councils must grant applications for controlled activities.

**Discretionary Activities:** allowed only if a resource consent is obtained. Regional Councils can exercise discretion over whether to grant consent or not.

**Non-Complying Activities:** contravene the plan but are not prohibited. A resource consent can be granted if it does not contravene the objectives and policies of the plan.

**Prohibited Activities:** resource consent shall not be granted.

Rules in the Plan provide terms which the Council will use for the consideration of applications for controlled and discretionary activities. The Plan also provides applicants with an indication of the types of conditions that may be imposed should an application be approved.

### 11.3 THE RESOURCE CONSENT PROCESS

Once an application has been lodged, the consent authority must decide whether or not to notify the application. If the application is non-notified the consent authority has 20 working days to make a decision. If the consent authority decides to notify the application then it has:

- 10 working days to publicly notify the application
- 20 working days to receive submissions
- 25 working days after the closure of submissions to hold a hearing. At least 10 working days notice must be given of the time and place of the hearing; then
- if a hearing is not held, 20 working days to make and notify a decision; or
- if a hearing is held, 15 working days after the hearing to make and notify a decision.

Figure 3 is a summary of the resource consent process.

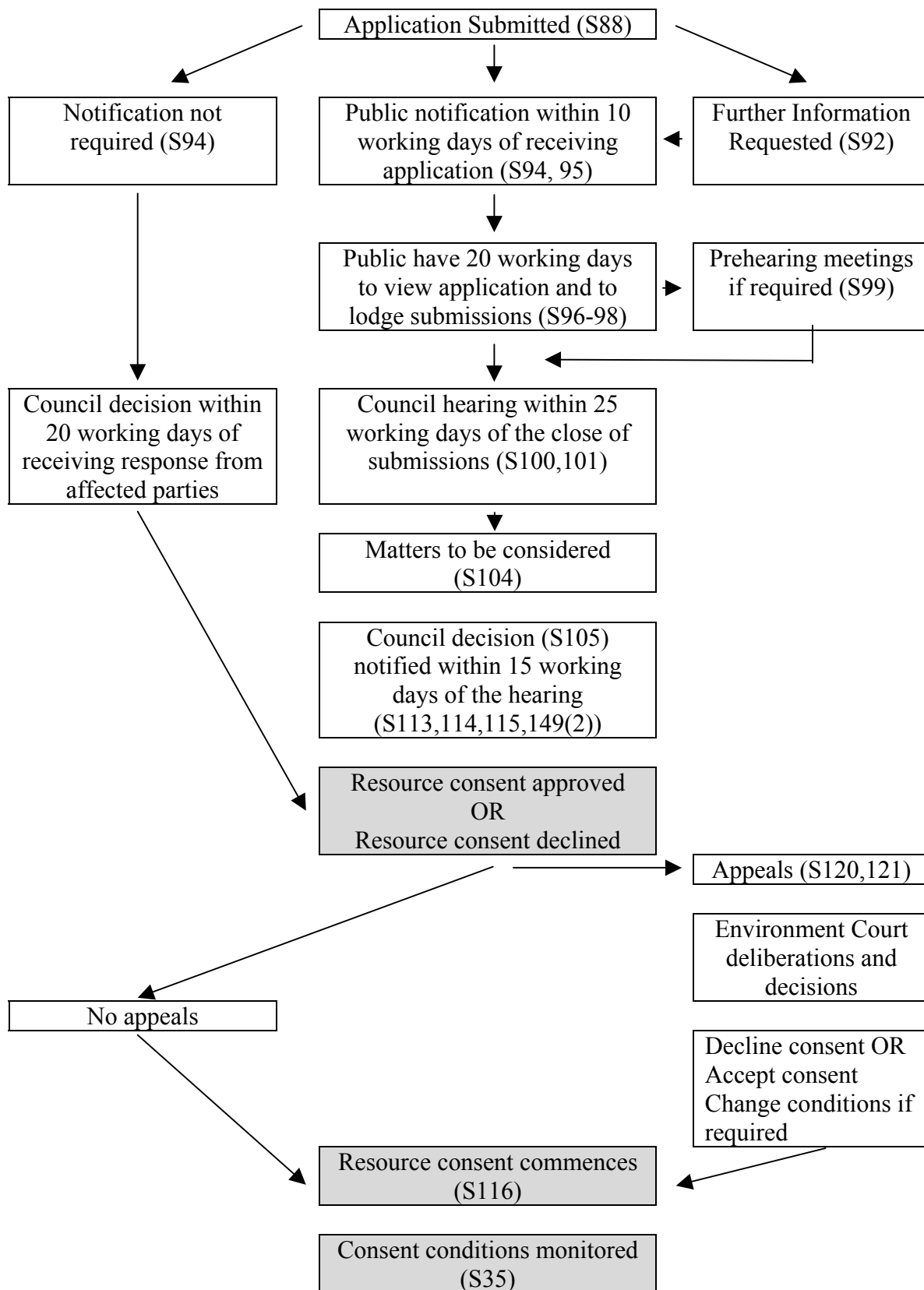


Figure 3: The Resource Consent Process

## Chapter 12

### INFORMATION REQUIREMENTS

#### 12.1 INFORMATION TO BE SUBMITTED WITH A RESOURCE CONSENT APPLICATION

In addition to the requirements of the Act, and specific information requirements required by the specific rules in the Plan, the applicant shall, when applying for consent, provide:

1. A description of the activity for which consent is sought, and its location.
2. The nature of the discharge (contaminants, quantity, frequency, duration, hazardous properties etc).
3. A description of the consultation that has been undertaken in relation to the application, including the results of any consultation, the response of those consulted with, and the applicants response to those comments.
4. An assessment of any actual or potential effects that the activity may have on the environment, and the ways in which any adverse effects may be mitigated. This assessment shall be in such detail as corresponds with the scale and significance of the actual or potential effects that the activity may have on the environment, and shall be prepared in accordance with the Fourth Schedule of the RMA. In particular, the assessment of environmental effects shall focus on:
  - a) any adverse effects on:
    - Human health;
    - Amenity values;
    - Resources or values of significance to the tangata whenua;
    - Soil, plants, animals, and ecosystems;
    - Surface water and groundwater;
    - The coastal environment.
  - b) any cumulative effects which may arise over time or in combination with other effects;
  - c) any effects of low probability but high potential impact;
  - d) the proposed monitoring provisions; and
  - e) any additional information that may be required in relation to applications for specific types of discharges. Council staff may be able to assist with the scope and contents of any additional information that may be required.

*An assessment of any actual or potential effects that the activity may have on the environment, and ways in which any adverse effects may be mitigated.*

#### Advisory Note:

If the application is for a resource consent for a controlled activity, then the assessment of environmental effects need only address those matters over which the Regional Council has retained control (specified in the relevant rule).

## 12.2 CIRCUMSTANCES IN WHICH THE POWERS IN SECTION 92 MAY BE USED

The powers under Section 92 of the RMA may be used if insufficient information is provided on any matter set out in Section 12.1 above. As stated in Brooker and Friend (1991):

*“A consent authority may require further information and explanations, may require an applicant to consider alternatives, and may commission reports before the hearing of an application for a resource consent. Such information may only be sought if it is necessary to enable the consent authority to better understand the nature of the activity proposed, the effect it will have on the environment, or the way adverse effects may be mitigated. Pending receipt of further information, it may postpone the notification or, if there is no hearing, the determination of an application. The information is to be made available for public inspection, and any reports commissioned are to be supplied to the applicant at least 15 working days before the hearing.”*

## Chapter 13

### CROSS BOUNDARY ISSUES

#### 13.1 INTRODUCTION

The Regional Council works in conjunction with three territorial authorities:

- Buller District Council;
- Grey District Council; and
- Westland District Council.

In addition the Regional Council is bounded by:

- Southland Regional Council;
- Canterbury Regional Council;
- Otago Regional Council; and
- Tasman District Council (a unitary authority).

Under Section 67 of the RMA, this Plan must state how the Regional Council intends to deal with issues which cross local authority boundaries, and issues between territorial authorities and between regions. The following is a discussion of the processes the Regional Council will adopt to deal with these issues.

#### 13.2 PROCESSES FOR DEALING WITH ISSUES THAT CROSS REGIONAL BOUNDARIES

The Regional Council will:

- Work with other regional councils on large-scale schemes for re-using, recycling or recovering materials where appropriate;
- Exchange information on issues which cross regional boundaries;
- Work with representatives of other regional councils on forums to address issues which cross regional boundaries;
- Liaise with other regional councils on the issue of liability for “orphaned” contaminated sites;
- Liaise with other local authorities and promote a cooperative approach in relation to any need for major facilities to avoid, remedy or mitigate the adverse effects of discharges of contaminants to land such as hazardous substances storage or treatment facilities;
- Work with other regional councils on tracking the transportation of hazardous substances between Regions;
- Conduct joint hearings where applicable;
- Work with other regional councils and prepare submissions on regional plans on cross-boundary issues.

*The Regional Council is bounded by the Southland Regional Council, the Otago Regional Council, the Canterbury Regional Council and the Tasman District Council*



### 13.3 PROCESSES FOR DEALING WITH ISSUES THAT CROSS TERRITORIAL AUTHORITY BOUNDARIES

The Regional Council will:

- Liaise with territorial authorities on the location and development of a system for the collection and storage of hazardous substances;
- Work with territorial authorities to develop appropriate provisions for controlling the use of land in relation to hazardous substances through district plans;
- Promote a cooperative approach to dealing with resource consents which involve permits for both land use and discharges to land;
- Conduct joint hearings where applicable;
- Consider using the transfer of power provisions in section 33 of the RMA in situations where both authorities agree that the authority to which the power is being transferred represents the appropriate community of interest, that the transfer would result in more efficiency, and that it is desirable due to technical or special capability or expertise;
- Exchange and share information on issues which cross district boundaries;
- Promote and facilitate pre-hearing meetings between parties in order to clarify, mediate or facilitate the resolution of any cross district issues relating to applications for resource consents;
- Work with territorial authorities and prepare submissions on district plans on issues which cross territorial authority boundaries.

## Chapter 14

### MONITORING AND REVIEW

#### 14.1 MONITORING

Under Section 35 of the RMA the Regional Council is required to monitor:

- The state of the environment to enable the Regional Council to effectively carry out its functions under the RMA;
- The suitability and effectiveness of this Plan;
- The exercise of any functions or powers transferred by the Regional Council;
- Compliance with resource consents;

and to take appropriate action where this is shown to be necessary.

In addition the RMA requires the Council to include in any Regional Plan, the procedures that will be used to monitor the effectiveness of the Plan in achieving the stated objectives and environmental results.

The following will be monitored to measure the effectiveness of this Plan:

**General:**

- The frequency and types of releases of brochures, mail drops, press releases and other promotional material used to implement the policies in the Plan;
- Awareness of issues surrounding the discharge of contaminants to land;
- The results of liaising with territorial authorities and interested groups in terms of output and actions from these meetings;
- Groundwater and surface water quality;
- The number of approved resource consents for discharges of contaminants to land, and the type of discharges occurring;
- The effectiveness of alternative systems and management practices for the treatment and disposal of contaminants to land;
- The occasions when enforcement procedures are used and any outcomes.

**Solid Contaminants:**

- The establishment of any new landfills which comply with the Ministry for the Environment Landfill Guidelines 1992, where those guidelines are relevant and useful to the site.

**Liquid Contaminants:**

- The number of approved dump sites for human effluent from campervans and caravans;
- The effectiveness of the promotion of appropriate disposal of human effluent by trampers, campers and cyclists.

**Agricultural Contaminants:**

- The number of unauthorised discharges of agricultural effluent to land;
- The advocacy and encouragement measures the Regional Council undertakes with respect to the treatment and disposal of agricultural effluent to land.

**Hazardous Substances:**

- The development of collection facilities for hazardous substances;
- The emergency procedures used for an accidental discharge of hazardous substances;
- The use of cleaner production in replacing hazardous substances with safer alternatives.

**Contaminated Sites:**

- The preparation of an inventory of confirmed contaminated sites in the Region;
- The rehabilitation of contaminated sites of high risk to the environment;
- The establishment by Central Government of facilities for the treatment of hazardous substances and for the clean-up of contaminated sites.

In addition, specific monitoring (including compliance and state of the environment monitoring) is addressed in the Regional Monitoring Strategy (West Coast Regional Council, 1998). Through this Strategy, monitoring objectives will be prioritised for action. Self-monitoring (where monitoring is carried out by the consent holder and the results audited by the Regional Council) may also be considered.

Ongoing auditing of this Plan will be carried out to ensure the implementation of the Plan's provisions, including implementation of regulatory and non-regulatory methods.

**14.2 REVIEW**

The Regional Council will review the Regional Plan for Discharges to Land no later than 10 years after the Plan becomes operative (Section 79 of the RMA). Having completed the review, the Regional Council will change or replace the Plan in accordance with the requirements set out in the First Schedule of the RMA.

As changes occur to the environment, to law or to relevancy, it may prove necessary to make amendments to this Plan sooner in order to respond to new issues and conditions. This can be done either in part by introducing a change to the document, or in full by way of a total review. Any person may apply for a change to a regional plan, or the Council itself may initiate a change to this Plan.

*The Regional Council will review the Regional Plan for Discharges to Land no later than 10 years after the Plan becomes operative*

Situations which may give rise to the Council initiating a change to this Plan include:

- Changes to the law;
- The results of monitoring the environment;
- The results of monitoring the effectiveness of this plan;
- Advances in technology or techniques in the production, recycling, reuse and recovery of wastes;
- Greater knowledge of the effects of waste management practices.

In addition, as the Council prepares other Regional Plans, such as water and air management plans, matters will likely arise which will result in the need to amend some of the provisions of this Plan. Where assessment indicates that alterations are required to the document, this will be achieved by introducing a formal change, and adopting the consultative procedures set out in the First Schedule of the RMA.

## Chapter 15

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## Chapter 16 APPENDICES

### APPENDIX 1: GLOSSARY

The definitions in *italics* are from Section 2 of the RMA.

<b>Agrichemical</b>	means any substance, whether inorganic or organic, manufactured or naturally occurring, modified or in its original state, that is used in any agriculture, horticulture, forestry management, or public amenity areas, or related activity, to eradicate, modify, or control flora or fauna, and excludes fertiliser and organisms used for biological control.
<b>Agrichemical Spray Drift</b>	means the airborne movement of agrichemicals onto a non-target area, with the potential of risk or injury or damage to humans, plants, animals, the environment or property.
<b>Agricultural effluent</b>	means effluent from livestock which is collected or otherwise managed and disposed of as a point source discharge to land, and includes sludge. The term does not include effluent discharges from individual animals direct to land.
<b>Amenity values</b>	<i>means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.</i>
<b>Background level</b>	means the ambient level of a contaminant in the local area of the site under consideration.
<b>Best Practicable Option</b>	<i>in relation to a discharge of a contaminant... means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:</i> <i>a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and</i> <i>b) the financial implications, and the effects on the environment, of that option when compared with other options; and</i> <i>c) the current state of technical knowledge and the likelihood that the option can be successfully applied.</i>
<b>Bioaccumulation</b>	means accumulation within the tissues of living organisms. (Source: Hazardous Substances and New Organisms Act 1996)
<b>BOD<sub>5</sub></b>	means the oxygen consumed by the degradation of organic matter by organisms in water. This is used as a measure of organic pollution (usually measured at 20°C over 5 days).

<b>Cleaner production</b>	means the conceptual and procedural approach to production that demands that all phases of the life cycle of a product or process should be assessed with the objective of prevention or minimisation of short and long-term risks to humans and to the environment.
<b>Coastal water</b>	<i>means seawater within the outer limits of the territorial sea and includes-</i> <i>(a) Seawater with a substantial fresh water component; and</i> <i>(b) Seawater in estuaries, fiords, inlets, harbours, or embayments.</i>
<b>Co-disposal</b>	means the disposal of certain hazardous and/or special waste in combination with non-hazardous wastes for the purpose of using the interactive processes between different types of waste to minimise the hazard.
<b>Commercial Operator</b>	<b>Spray</b> means spray operators who trade for hire or reward.
<b>Composting</b>	means where biodegradable plant material is collected and brought together for the purposes of making compost.
<b>Contaminant</b>	<i>includes any substance (including gases, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar or other substances, energy or heat -</i>  <i>(a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or</i>  <i>(b) when discharged into or onto land or into air, changes or is likely to change the physical, chemical or biological condition of the land or air onto or into which it is discharged.</i>
<b>Contaminated Site</b>	means a site at which hazardous substances occur at concentrations above background levels and where assessment indicates it poses or is likely to pose an immediate or long term hazard to human health or the environment. <i>Background levels</i> refer to ambient levels of a contaminant in the local area of the site under consideration (see above).
<b>Controlled Activity</b>	<i>means an activity which-</i> <i>(a) Is provided for, as a controlled activity, by a rule in a plan or proposed plan; and</i> <i>(b) Complies with standards and terms specified in a plan or proposed plan for such activities; and</i> <i>(c) Is assessed according to matters the consent authority has reserved control over in the plan or proposed plan; and</i> <i>(d) Is allowed only if a resource consent is obtained in respect of that activity.</i>

<b>Dairy Sheds</b>	includes all hard surfaces (e.g. holding yards) from which effluent is collected.
<b>Discharge</b>	<i>includes emit, deposit, and allow to escape.</i>
<b>Discretionary Activity</b>	<i>means an activity-</i> <i>(a) Which is provided for, as a discretionary activity, by a rule in a plan or proposed plan; and</i> <i>(b) Which is allowed only if a resource consent is obtained in respect of that activity; and</i> <i>(c) Which may have standards and terms specified in a plan or proposed plan; and</i> <i>(d) In respect of which the consent authority may restrict the exercise of its discretion to those matters specified in a plan or proposed plan for that activity.</i>
<b>District Plan</b>	<i>means an operative plan approved by a territorial authority under the First Schedule; and includes all operative changes to such a plan (whether arising from a review or otherwise).</i>
<b>Drain</b>	A channel constructed for the purposes of lowering the water table or diverting excess water. For the purposes of agricultural effluent discharges, this includes drains which channel excess water into a water body.
<b>Domestic Property</b>	means a property used primarily as a place of residence, whether occupied or not, where no agricultural/horticultural commercial gain is generated from the property.
<b>Ecosystem</b>	means a dynamic complex of plant, animal and micro-organism communities and their environment, interacting as a functional unit.
<b>Ecotoxic</b>	means the capacity of causing ill-health, injury or death to any living organism. (Source: Hazardous Substances and New Organisms Act 1996).
<b>Effluent</b>	means the matter discharged from a sewage or wastewater treatment system.
<b>Environment</b>	<i>includes-</i> <i>(a) Ecosystems and their constituent parts, including people and communities; and</i> <i>(b) All natural and physical resources; and</i> <i>(c) Amenity values; and</i> <i>(d) The social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters.</i>
<b>Faecal Coliforms</b>	Gram negative rod-shaped bacteria that ferment lactose and produce acid and gas at 44.5 degrees plus or minus 0.2C. Faecal coliform bacteria are present in the gut and hence the faeces of warm blooded animals and humans, and are used as an indicator of human or animal-derived pollution.

<b>Feed lot, wintering/stand-off pad</b>	means an area where stock are confined in order to avoid damage to pasture, and for feeding out during periods when soils are saturated. These areas can be located either indoors or outdoors, and can include sacrifice lots but exclude piggeries.
<b>Fertiliser</b>	means any substance which is in a state suitable for application to land or plants for the purpose of increasing the growth or productivity of plants. For the avoidance of doubt, this includes dry organic materials (such as blood and bone), lime, whey and other inorganic soil conditioners, but does not include any agricultural effluent as addressed in Rules 13 and 24.
<b>General Authorisation</b>	means a regulatory instrument issued under section 22 of the Water and Soil Conservation Act 1967, and deemed to be a regional rule in the Transitional Regional Plan.
<b>Green waste</b>	means organic material including: <ul style="list-style-type: none"> <li><input type="checkbox"/> vegetative material;</li> <li><input type="checkbox"/> vegetable peelings or trimmings but no other kitchen wastes;</li> <li><input type="checkbox"/> soil attached to plant roots;</li> </ul> that may be physically modified, but is otherwise in its natural state, but not including animal products (e.g. manure, feathers, carcasses).
<b>Grey water</b>	means human waste water, excluding human excreta, and including, for example, laundry, kitchen and bathroom waste water.
<b>Hapu</b>	means sub-tribe.
<b>Hazardous Substance</b>	means any substance - <ul style="list-style-type: none"> <li>a) with one or more of the following intrinsic properties: <ul style="list-style-type: none"> <li>i. explosiveness;</li> <li>ii. flammability;</li> <li>iii. a capacity to oxidise;</li> <li>iv. corrosiveness;</li> <li>v. toxicity (including chronic toxicity);</li> <li>vi. ecotoxicity, with or without bioaccumulation; or</li> </ul> </li> <li>b) which on contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased) generates a substance with any one or more of the properties specified in paragraph (a) of this definition. (Source: Hazardous Substances and New Organisms Act 1996).</li> </ul>
<b>Hazardous waste</b>	means any waste which has any of the properties of a hazardous substance. This includes: <ul style="list-style-type: none"> <li>(a) a hazardous substance which has not been used and requires disposal, or</li> <li>(b) the residue of a hazardous substance which has been used and requires disposal, or</li> </ul> waste material containing a hazardous substance.

<b>Industrial or trade premises</b>	<i>means-</i> (a) <i>any premises used for any industrial or trade purposes; or</i> (b) <i>any premises used for the storage, transfer, treatment, or disposal of waste materials for other waste management purposes, or used for composting organic materials; or</i> (c) <i>any other premises from which a contaminant is discharged in connection with any industrial or trade process- but does not include any production land.</i>
<b>Industrial or trade process</b>	<i>includes every part of a process from the receipt of raw material to the dispatch or use in another process or disposal of any product or waste material, and any intervening storage of the raw material, partly processed matter or product.</i>
<b>Iwi</b>	means tribe, people.
<b>Kaitiaki</b>	means a person or agent who cares for taonga; may be spiritual or physical. A guardian, steward, but the meaning of kaitiaki in practical application may vary between different hapu and iwi.
<b>Kaitiakitanga</b>	<i>means the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship.</i>
<b>Land</b>	for the purposes of this Plan, excludes the beds of any waterbody and the air space above the land.
<b>Landfill</b>	means any premises used for the lawful deposit or disposal of waste materials into or onto land. (Source: Hazardous Substances and New Organisms Act 1996).
<b>Landfill gas</b>	means gas generated as a result of the decomposition processes in decaying wastes deposited at a landfill. It comprises mainly methane and carbon dioxide, but includes a range of other components.
<b>Liquid contaminant</b>	means liquid residue of domestic, industrial, commercial and agricultural waste, including but not limited to, water, leachate, detergents, human and animal effluent/by-products.
<b>Long-drop toilet</b>	means the same as pit toilet.
<b>Mahinga kai</b>	means places and practices involved in the gathering of food.
<b>Network utility operator</b>	has the meaning set out in section 166 of the RMA.
<b>Non-complying Activity</b>	<i>means an activity which-</i> (a) <i>Is provided for, as a non-complying activity, by a rule in a plan or proposed plan; or</i> (b) <i>Contravenes a rule in a plan or proposed plan- and is allowed only if a resource consent is obtained in respect of that activity.</i>

<b>Non-point discharge</b>	means a diffuse discharge of contamination to air, water or land.
<b>Offal</b>	means waste comprised only of animal matter, and does not include agricultural effluent.
<b>Offal pit</b>	means a hole excavated in the ground for the purposes of disposing of offal.
<b>Organic waste</b>	means waste material of plant (including green waste), animal or microbiological origin.
<b>Papatipu Runanga</b>	means the Runanga with the customary authority.
<b>Permitted Activity</b>	<i>means an activity that is allowed by a plan without a resource consent if it complies in all respects with any conditions (including any conditions in relation to any matter described in section 108 or section 220) specified in the plan.</i>
<b>Pit toilet</b>	means an unlined pit or dry vault excavated for the disposal of human sewage, which is not subject to any treatment or flushing.
<b>Production land</b>	<i>(a) means any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products): (b) does not include land or auxiliary buildings used or associated with prospecting, exploration, or mining for minerals.</i>
<b>Prohibited Activity</b>	<i>means an activity which a plan expressly prohibits and describes as an activity for which no resource consent shall be granted; and includes any activity prohibited by section 105(2)(b) of the Historic Places Act 1993.</i>
<b>Public amenity areas</b>	means those areas to which the public have right of access under any statute, regulation, law or bylaw.
<b>Public Notice</b>	means a notice published in one or more daily newspapers circulating the area, district or region to which the requirement for notice relates.
<b>Recycling</b>	means the return of discarded waste materials to the production system for utilisation in the manufacture of goods, with a view to the conservation as far as practicable of non-renewable and scarce resources.
<b>Region</b>	means the West Coast Region, and Regional Council means the West Coast Regional Council.
<b>Registered Organic Farm</b>	Means any property registered or certified by the New Zealand Biological Producer and Consumer Council Incorporated or the Biodynamic Farming and Garden Association as an organically farmed property, provided that this registration or certification was established before any discharge activity is commenced.

<b>Resource Consent</b>	means a consent to undertake an activity that would otherwise contravene Section 15 of the RMA.
<b>Resource recovery</b>	means the utilisation of waste as a resource through the transformation of the waste into a useable product, or the recovery of energy.
<b>Roads</b>	For the purposes of Rule 5, roads include: Footpaths Berms (grassed, cobbled, or otherwise formed and covered) Kerbs and channels, dish drains, road side drains in rural areas.
<b>Septage</b>	means the total solid and liquid contents of septic tank systems or aerated wastewater treatment systems which are periodically collected during desludging operations.
<b>Septic tank</b>	means a single or multiple chambered tank specifically designed for the treatment of sewage and/or sullage by retention of solids, combined with a subsoil soakage system for disposal.
<b>Sewage</b>	means any human faecal matter, urine, wastewater containing human waste, and grey water, prior to any treatment.
<b>Sewerage</b>	means the pipes and infrastructure through which sewage flows.
<b>Sludge</b>	means the semi-liquid solids which accumulate in septic tanks or agricultural effluent treatment systems.
<b>Solid waste</b>	means the solid residue of domestic, industrial and commercial waste that excludes green waste, hazardous waste, and organic waste.
<b>Substance</b>	means- (a) Any element, defined mixture of elements, compounds, or defined mixture of compounds, either naturally occurring or produced synthetically, or any mixtures thereof. (b) Any isotope, allotrope, isomer, congener, radical, or ion of an element or compound which has been declared by the Environmental Risk Management Authority, by notice in the Gazette, to be a different substance from that element or compound. (c) Any mixtures or combinations of the above. (d) Any manufactured article containing, incorporating or including any hazardous substance with explosive properties.  For the purposes of paragraph (a) of this definition, the definition of any mixture of elements or mixture of compounds may include a range of percentages of the elements or compounds making up the substance. (Source: Hazardous Substances and New Organisms Act 1996).
<b>Toxic</b>	means capable of causing ill-health in, or injury to, human beings. (Source: Hazardous Substances and New Organisms Act 1996).

<b>Waahi tapu</b>	means a place which is particularly sacred or spiritually meaningful to tangata whenua. It includes burial grounds and places where significant events have taken place.
<b>Waste Disposal Facility</b>	means the same as landfill.
<b>Waste management</b>	includes the transportation, resource recovery, recycling, storage, treatment and/or disposal of wastes including management systems to ensure that environmental effects are minimised. Waste management also encompasses measures to avoid waste generation.
<b>Waste minimisation</b>	means the modification of existing processes or behaviours to reduce waste production to a minimum.
<b>Waste oil</b>	means any oil refined from crude oil, or any synthetic oil, which has been used or which is unwanted, and which is contaminated by physical or chemical impurities, or by the breakdown of its original properties. It does not include oils derived from animal or vegetable fats and oils.
<b>Water</b>	<p><i>(a) Means water in all its physical forms whether flowing or not and whether over or under the ground:</i></p> <p><i>(b) Includes fresh water, coastal water, and geothermal water:</i></p> <p><i>(c) Does not include water in any form while in any pipe, tank or cistern.</i></p>
<b>Water body</b>	<i>means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.</i>
<b>Wetland</b>	<i>includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals adapted to wet conditions.</i>
<b>Whanau</b>	means an extended family including the nuclear family, and aunts, uncles and cousins.



**APPENDIX 2.0: FIRST SCHEDULE OF THE PESTICIDES ACT 1979****PART I**

1. Sodium fluoroacetate (also known as 1080).
2. Methyl naphthyl fluoroacetamide.

**PART II**

1. Arsenic trioxide.
2. Phosphorus.
3. Strychnine.
4. Sodium cyanide. |
5. Potassium cyanide. | Also known as “cyanide”
6. Calcium cyanide. |

**PART III**

1. 3-chloro-p-toludine hydrochloride (also known as DRC 1339).
2. Alphachloralose (as an avicide), except when used as a bait immediately available for use, where the concentration of active ingredient does not exceed 25g/kg (2.5%) of bait.
3. 4-aminopyridine (also known as Avitrol).

## APPENDIX 3.0: MATTERS TO BE INCLUDED IN LANDFILL MANAGEMENT PLANS

<b>SECTION 1</b>	1.1	General description of the landfill site, including ownership and management responsibilities
	1.2	Approval and consents obtained
	1.3	Staging
	1.4	Projected life
	1.5	End use
	1.6	Initial upgrading
	1.7	Geotechnical investigation
	1.8	Assessment of Environmental Effects
	1.9	Any implications of site management and operation of landfill for iwi (this may require consultation)

### **SECTION 2                      MANAGEMENT**

2.1	Right of access
2.2	Landfill hours
2.3	Kiosk operation and charging
2.4	Management structure
2.5	Staff requirements
2.6	Training
2.7	Operator's guide
2.8	Annual review and report

### **SECTION 3                      LANDFILL OPERATION**

3.1	Site preparation
	<input type="checkbox"/> tip head
	<input type="checkbox"/> signs
	<input type="checkbox"/> screens
	<input type="checkbox"/> perimeter fencing
<input type="checkbox"/> landscaping	
3.2	Water control
	<input type="checkbox"/> stormwater <input type="checkbox"/> leachate
3.3	Landfilling
	<input type="checkbox"/> method of landfilling
	<input type="checkbox"/> size of face
	<input type="checkbox"/> height of lifts
<input type="checkbox"/> access roads	
3.4	Compaction
	<input type="checkbox"/> method of compaction
	<input type="checkbox"/> degree of compaction
	<input type="checkbox"/> method of compaction testing
<input type="checkbox"/> frequency of compaction testing	

- 3.5 Hazardous waste
- documentation
  - acceptable/unacceptable wastes
  - waste compatibilities
  - methods of disposal
  - monitoring and recording
  - reporting results to Regional Council
  - waste in drums
- 3.6 Liquid waste
- acceptable/unacceptable wastes
  - methods of disposal
  - areas of disposal
  - maximum loadings
  - monitoring
- 3.7 Cover material
- type of cover material to be used
  - depth of cover
  - amount of cover material to be used
  - final cover
  - importing of cover material
  - stockpiling of cover material
  - surface water runoff
- 3.8 Inert fill
- method of disposal
- 3.9 Control of nuisances and adverse effects
- spillages
  - litter
  - dust
  - vermin
  - birds
  - scavengers
  - odours
  - landfill gas
- 3.10 Monitoring and records
- groundwater
  - surface water
  - landfill gas
  - refuse quantities
  - hazardous wastes
- 3.11 Emergency procedures
- fires
  - landfill gas
  - first-aid
  - emergency contacts

## SECTION 4

## REINSTATEMENT

- 4.1 Final landform
- 4.2 Closure and after-care

## APPENDIX A

Approval documentation

## APPENDIX B

- Drawings
- aerial photograph
  - staged management plans
  - final landform plan

(Source: Centre for Advanced Engineering, 1992)

## APPENDIX 4.0: MATTERS TO BE ADDRESSED IN SITE INVESTIGATIONS FOR THE TREATMENT AND DISPOSAL OF SEWAGE EFFLUENT AND SEPTAGE TO LAND

### Site investigations must:

- be fully documented, in accordance with Regional Council guidelines;
- include any or all of the following matters:

### Groundwater Information:

The following factors are relevant:

- a) depth to groundwater, and seasonal variation of the water table;
- b) direction and rate of flow of saturated groundwater.

### Soil Information:

The following factors are relevant:

Soil profile description of the different horizons including:

- a) depth;
- b) texture - approximate percentage of sand, silt, clay and gravel in each horizon;
- c) presence or absence of clay and iron pans;
- d) infiltration characteristics - for the discharge of sewage effluent into land, a percolation test shall be used.

### Other Site Information:

The following factors are relevant:

- a) topography, slope and slope stability;
- b) rainfall and susceptibility of the site to temporary flooding and ground saturation during rain;
- c) proximity to water bodies and drainage patterns;
- d) site vegetation;
- e) location of bores;
- f) the availability and location of proposed discharge and reserve areas;
- g) water supply source;
- h) proximity of other discharges of effluent to land;
- i) other local experience with discharges of sewage effluent to land.

Guidelines for site investigations and further information are available from the West Coast Regional Council.

## APPENDIX 5.0: LIST OF HAZARDOUS SUBSTANCES' CHARACTERISTICS

UN Class*	Code	Characteristics
1	H1	<p><b>Explosives</b></p> <p>An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such temperature and pressure and at such a speed as to cause damage to the surroundings.</p>
2	H3	<p><b>Flammable Liquids</b></p> <p>The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquid or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers etc. but not including substances or wastes otherwise classified on account of dangerous characteristics) which give off flammable vapour at temperatures of not more than 60 degrees C.</p>
4.1	H4.1	<p><b>Flammable Solids</b></p> <p>Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.</p>
4.2	H4.2	<p><b>Substances or Waste Liable to Spontaneous Combustion</b></p> <p>Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or heating up on contact with air, and being then liable to catch fire.</p>
4.3	H4.3	<p><b>Substances or Wastes which, in Contact with Water, Emit Flammable Gases</b></p> <p>Substances or wastes which, by interactions with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p>
5.1	H5.1	<p><b>Oxidising Substances</b></p> <p>Substances or wastes which, while in themselves are not necessarily combustible, may generally by yielding oxygen cause, or contribute to, the combustion of other materials.</p>
5.2	H5.2	<p><b>Organic Peroxides</b></p> <p>Organic substances or wastes which contain the bivalent -O-O- structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.</p>
6.1	H6.1	<p><b>Poisonous Substances</b></p> <p>Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.</p>

6.2	H6.2	<b>Infectious Substances</b> Substances or wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.
7	H7	<b>Radioactive Material</b> Spontaneously emits radiation greater than background level. Includes alpha, beta, gamma, x-rays, neutrons, high-energy electrons, protons, other atomic particles.
8	H8	<b>Corrosives</b> Substances or wastes which, by chemical action will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
9	H10	<b>Liberation of Toxic Gases in Contact with Air or Water</b> Substances or gases which by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
9	H11	<b>Toxic (Delayed or Chronic)</b> Substances or wastes, which if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
9	H12	<b>Ecotoxic</b> Substances or waste which, if released, present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
9	H13	Capable, by any means, after disposal, of yielding another material e.g. leachate, which possesses any of the characteristics listed above.

(Source: Ministry for the Environment, 1994b)

\*Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/AG/AC.10/1/Rev.6, United Nations, New York, 1989).

## APPENDIX 6.0: STATUTORY ACKNOWLEDGEMENT AREAS

**Note: This section is attached for public information purposes only, in accordance with Section 220(2) of the Ngai Tahu Claims Settlement Act 1998. This information is neither part of the Plan, nor subject to the provisions of the First Schedule of the Resource Management Act 1991.**

In the Ngai Tahu Claims Settlement Act 1998, the Crown acknowledged statements by Te Runanga o Ngai Tahu of the particular cultural, spiritual, historic and traditional association of Ngai Tahu with areas described in that Act. The statements, which are called “statutory acknowledgements” are set out in schedules in the Act. The areas to which the statutory acknowledgements relate are known as statutory areas.

The Regional Council must include in the regional plan information recording all statutory acknowledgements affecting statutory areas covered wholly or partly by that regional plan. Six statutory areas in the West Coast region are covered by this Plan. The Ngai Tahu associations with these six areas, taken from the Ngai Tahu Claims Settlement Act, are reproduced below.

The significance of statutory acknowledgements is:

- (1) The Regional Council must forward to Te Runanga o Ngai Tahu a summary of every application for a resource consent for activities within, adjacent to or impacting directly on a statutory area, before the application is notified and before the regional council makes a decision to dispense with notification [refer section 207 Ngai Tahu Claims Settlement Act and to the Ngai Tahu Claims Settlement (Resource Management Consent Notification) Regulations 1999].
- (2) The Regional Council must have regard to statutory acknowledgements in deciding, under section 93 of the Resource Management Act, whether Te Runanga o Ngai Tahu is likely to be directly affected by an application for a resource consent for activities within, adjacent to, or impacting directly on a statutory area.
- (3) The Regional Council must have regard to the statutory acknowledgements in deciding whether Te Runanga o Ngai Tahu is a person who may be adversely affected by the granting of a resource consent for an activity within, adjacent to, or impacting directly on the statutory area and whose written approval must be given before the application for a resource consent for that activity can be dealt with on a non-notified basis.
- (4) Te Runanga o Ngai Tahu, and any member of the Ngai Tahu Whanui may cite the statutory acknowledgement as evidence of the association of Ngai Tahu with the statutory area in submissions to and at any hearing held by the regional council on a resource consent application, a policy statement or a plan.

Further information on the statutory acknowledgements for the six statutory areas can be found in Schedules 25, 31, 33, 38, 56, and 62 of the Ngai Tahu Claims Settlement Act 1998. [Maps showing the location of the Statutory Acknowledgement areas are held at Regional Council offices.](#)



The associations for the six statutory areas within the West Coast region covered by this Plan, as set out in the Ngai Tahu Claims Settlement Act, are:

### **Ngai Tahu Association with Kotuku-Whakaoho (Lake Brunner/Moana)**

*The name Kotuku-Whakaoho relates to a husband and wife called Kotuku and Mawhera. Both were killed at this site which led to one (Kotuku) having their name applied to the lake and the other (Mawhera) lending their name to the Grey River.*

*As with most lakes, there is also a tradition of a taniwha connected with Kotuku-Whakaoho. The story tells how two taniwha were killed by a chief because they had killed his father and sister. On their deaths, the taniwha became islands which now lie in the lake.*

*For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.*

*Kotuku-Whakaoho holds an important place in Ngai Tahu history as the site of the tribe's battle with Ngati Wairaki. Victory in this battle saw Ngai Tahu gain manawhenua in the area.*

*Besides being a famous battle ground, Kotuku-Whakaoho was important as the site of a permanent settlement, acting as a focal point for food-gathering parties. The principal food taken from the lake was tuna (eel). Water fowl and forest fowl were also important mahinga kai in this area.*

*The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the lake, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.*

*The importance of the area to Ngai Tahu was recognised by the Crown in the setting aside of a reserve at the lake for Ihaia, Tainui and Waipapara.*

*The mauri of Kotuku-Whakaoho represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.*

### **Ngai Tahu Association with the Taramakau River**

*“Manawhenua (tribal authority over the area) was gained through Ngai Tahu's defeat of Ngati Wairaki, Tumatakokiri and Ngai Toa. For Ngai Tahu, histories such as this reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped Ngai Tahu as an iwi.*

*The Taramakau River was and still is a significant indigenous fishery and source of manu (birds). The river remains a source of rich and abundant harvests. The area is noted particularly for its tuna (eel) and inaka (whitebait) fisheries.*

*The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.*

*There was a pa at the mouth of the river, and kainga nohoanga (temporary settlements) were established along the length of the river which were related to the taking of mahinga kai and, in particular, the retrieval of pounamu. The river itself was, therefore, a significant part of the pounamu trail, via which the taonga was transported from its source to be traded up and down the country.*

*The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the river. The river was an integral part of a network of trails which were used in order to ensure the safest journey, and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the river.*

*The mauri of Taramakau represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.”*

### **Ngai Tahu Association with Lake Kaniere**

*Kaniere is noted in Ngai Tahu tradition as a lake occupied by the Ngati Wairaki explorer, Raureka. According to tradition, Raureka was the first to cross Ka Tiritiri o te Moana (the Southern Alps) from her village at Arahura. Apparently she left the village after an argument with her Ngati Wairaki whanaunga (relatives). Raureka was accompanied by her slave as she wandered up to Kaniere and eventually came across a pass which took her to the Rakaia Valley and eventually the Canterbury Plains.*

*This route came to be later known as Noti Raureka (Brownings Pass). On the east coast, Raureka fell in with a number of Ngai Tahu in the Temuka region who were felling timber with adzes. Raureka showed them her pounamu (greenstone) adze and proceeded to fell the tree. The Ngai Tahu agreed that her pounamu was a better stone for an adze. Raureka eventually led a Ngai Tahu party across the Alps to show them the source of pounamu.*

*For Ngai Tahu, histories such as this reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped Ngai Tahu as an iwi.*

*Kaniere was also an important mahinga kai used by parties crossing between the coasts. Tuna (eels) and weka were the main foods taken in this area. The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and*

*other taonga, ways in which to use the resources of the lake, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.*

*Because of its importance as a mahinga kai, the Crown set aside a reserve at the lake for Ngai Tahu last century.*

*The mauri of Kaniere represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.*

### **Ngai Tahu Association with the Makaawhio (Jacobs River)**

*According to legend, the Makaawhio River is associated with the Patupaiarehe (flute playing fairies) and Maeroero (ogres of the forest). It is said that Tikitiki o Rehua was slain in the Makaawhio River by the Maeroero. The name 'Tikitiki o Rehua' is now attached to the ridge of hills (sometimes called Jacobs Ridge) on the north bank of the Makaawhio River.*

*For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.*

*Manawhenua (tribal authority over the area) was gained through Ngai Tahu's defeat of Ngati Wairaki and Tumatakokiri. That manawhenua was cemented by the establishment of kainga nohoanga (permanent settlements) at the mouth and on both banks of the river because of the plentiful supply of mahinga kai from the river and its estuary and surrounds. A northern settlement strategically sited on Tahekeakai (Jacobs Bluff) acted as a sentry lookout that warned of approaching visitors.*

*As a result of this pattern of occupation, there are a number of urupa and wahi tapu along the river. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. Urupa and wahi tapu are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.*

*The Makaawhio was and still is the source of a range of mahinga kai. Rocks at the mouth of the river still provide an abundance of kaimoana (seafood). The estuary of the river itself still provides an abundance of kaiawa (freshwater fisheries), including tuna (eels), patiki (flounders) and inaka (whitebait) and remains a significant kohanga (nursery) for a variety of fish species.*

*The area is still a significant manu (bird) breeding area, once yielding a rich harvest. The flora of the area provided not only food, but also the raw materials for raranga (weaving), rongoa (medicines) and the building of waka (canoes) and whare (houses).*

*In addition to its bounty of mahinga kai resources, the Makaawhio is a source of the mineral kyanite (Aotea).*

*The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.*

*Because of the kainga nohoanga, reserves were set aside on the river for Ngai Tahu at the time of the 1860 Arahura Deed of Sale. One of these was an urupa, where notable Ngai Tahu tupuna Te Koeti Turanga and Wi Katau Te Naihi are buried, among others.*

*The mauri of the Makaawhio represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.*

### **Ngai Tahu Association with Lake Paringa**

*Manawhenua (tribal authority over the area) was gained by Ngai Tahu's defeat of Ngati Wairaki, Tumatakokiri and Ngati Toa. For Ngai Tahu, histories such as this reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped Ngai Tahu as an iwi.*

*Seasonal kainga nohoanga (settlements) were established for the taking of mahinga kai. Paringa was and still is a noted tuna (eel) fishery, significant spawning ground and kohanga (nursery) for a variety of fish species and significant breeding area for manu (birds), including ducks, kukupa (kereru/ wood pigeon) and weka (now extinct in this area). The lake was therefore a source of rich and abundant harvests. The area also provided plants utilised in raranga (weaving) and other practices.*

*The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of the lake, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today. Because of the kainga nohoanga, a reserve was set aside for Ngai Tahu in this area at the time of the 1860 Arahura Deed of Sale.*

*The lake also is a wahi tapu. Wahi tapu are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.*

*The mauri of Lake Paringa represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the lake.*

### **Ngai Tahu Association with Tititea (Mt Aspiring)**

*As with all principal maunga (mountains), Tititea is imbued with the spiritual elements of Raki and Papa, in tradition and practice regarded as an important link to the primeval parents. Tititea is a prominent and majestic peak, clearly visible from a number of vantage*

*points in the south, and its role in Ngai Tahu's creation stories gives rise to its tapu status. From the heights above Te Ana-au (Lake Te Anau), it is a particularly impressive sight when the sun is setting.*

*The most common Ngai Tahu name for the mountain known to Pakeha as Mount Aspiring is Tititea, referring to the mountain's white peak. It is not unusual, however, for places and physical features to have more than one name, reflecting the traditions of the successive iwi who peopled the land. Other names for the mountain include 'Makahi Ta Rakiwhanoa' (referring to a wedge belonging to Tu Te Rakiwhanoa) and 'otapahu', which may refer to a type of dogskin cloak.*

*The Bonar Glacier is known as Hukairoroa Ta Parekiore (which refers to the long, hard glacial ice and crevasses formed by Parekiore). Parekiore was a giant who used to stalk up and down the South and North Islands taking titi (muttonbirds) northwards and returning with kumara. The lakes represent his footprints and the frozen splashes from his footsteps in the south were transformed into glaciers.*

*For Ngai Tahu, traditions such as this represent the links between the cosmological world of the gods and present generations, these histories reinforce tribal identity and solidarity, and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngai Tahu as an iwi.*

*The area was part of a network of trails which were used in order to ensure the safest journey and incorporated locations along the way that were identified for activities including camping overnight and gathering kai. Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the land.*

*The mauri of Tititea represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the area.*