Wairau/Awatere
Resource Management Plan

Volume One
Objectives, Policies and Methods

9 March 2009

Cover photograph: Lower Awatere Valley, by Graeme Matthews

W045-13

MARLBOROUGH
DISTRICT COUNCIL

WAIRAU / AWATERE RESOURCE MANAGEMENT PLAN

It is hereby certified that the regional coastal plan provisions of the Wairau/Awatere Resource Management Plan were adopted by the Marlborough District Council on 8 February 2008 (recorded in Minute E.07/08.399).

The Common Seal of the Marlborough District Council was affixed on the 8 February 2008 in the presence of:

THE MARLBOROUGH DISTRICT COUNCIL
The Common Seal of

ALISTAIR SOWMAN
MAYOR

ANDREW BESLEY
CHIEF EXECUTIVE

It is hereby certified that the regional coastal plan provisions of the combined Wairau/Awatere Resource Management Plan, as set out in Section 1.8 of Volume One of the Plan, were approved by the Minister of Conservation by signing it on the 23 day of July 2008.

Hon Steve Chadwick
Minister of Conservation

It is hereby certified that the remainder of the Wairau/Awatere Resource Management Plan was adopted in part by the Marlborough District Council on 5 September 2008 (recorded in Minute E.08/09.121). This adoption excludes those parts of the Plan identified by notation and:

- Coloured blue in Volumes One and Two; or
- Overlaid hatching in Volume Three.

The Common Seal of the Marlborough District Council was affixed on the 5 September 2008 in the presence of:

ALISTAIR SOWMAN
MAYOR

ANDREW BESLEY
CHIEF EXECUTIVE

Date Operative

9 March 2009

MARLBOROUGH
DISTRICT COUNCIL

RESOURCE MANAGEMENT ACT 1991

WAIRAU / AWATERE RESOURCE MANAGEMENT PLAN

It is hereby certified that this is the Wairau/Awatere Resource Management Plan is approved by the Marlborough District Council.

References to exclusions to operative status on the previous seal page are now redundant.

All changes to the Wairau/Awatere Resource Management Plan from the date of this seal page are recorded in the record of changes over page.

The Common Seal of the Marlborough District Council was affixed on the 25 August 2011 in the presence of:

THE MARLBOROUGH DISTRICT COUNCIL
The Common Seal of

ALISTAIR SOWMAN
MAYOR

ANDREW BESLEY
CHIEF EXECUTIVE

The Regional Coastal, Regional and District Plan became operative in full on **25 August 2011**

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Volume One - Policies and Objectives

1.0 Introduction

As a Unitary Authority the Marlborough District Council has the powers, functions and responsibilities of both a regional and district council. Under the Resource Management Act 1991 (the Act) it therefore has an obligation to prepare a Regional Policy Statement, a Regional Coastal Plan, a District Plan and such other Regional Plans as are necessary. With its dual responsibilities as both a district and regional authority, the Council has taken the opportunity to integrate the management of the resources of the Wairau/Awatere area by preparing this combined Regional, District and Coastal Plan, known as the 'Wairau/Awatere Resource Management Plan' (the Plan).

1.1 Areas to Which the Plan Applies

This Plan applies to the Wairau/Awatere Plan area as defined on the planning maps, Volume Three of the Wairau/Awatere Resource Management Plan.

The northern landward boundary adjoins that of the Marlborough Sounds Resource Management Plan and approximately follows the ridgeline of the Bryant and Richmond Ranges.

The coastal boundary runs between Whites Bay to the north and Willawa Point in the south. The outer coastal limits extend 12 nautical miles out to sea.

From Willawa Point the boundary generally extends inland along the Inland Kaikouras then crosses to the seaward Kaikouras at its southernmost extent. The western boundary is delineated along the St Arnaud and Richmond Ranges.

1.2 Plan Purpose

The purpose of this plan is to promote the sustainable management of the natural and physical resources of the Wairau/Awatere area, including the coastal environment and to promote the integrated management of that area. In particular, the plan sets out the significant issues relating to: Natural Character; Indigenous Flora and Fauna and their Habitats; Landscape; Tangata Whenua; Heritage; Air; Water; Public Access; the Coastal Marine area; the Urban Environment; the Rural Environment; Open Space; Land Disturbance; Discharges to Land; Undesirable Plants and Animals; Natural Hazard Management; Hazardous Substances; Land Transportation; Utilities; Outdoor Advertising; Noise and the Subdivision of Land. The Plan sets out objectives, policies and methods including rules to resolve these issues and to promote the sustainable management of the natural and physical resources of the Wairau/Awatere area.

1.3 Life of the Plan

The Council is obliged to commence a full review of the Plan not later than 10 years after the Plan becomes operative.

In view of possible resource management issue or policy changes in the District over the next 10 years, provision is made in the Act for changes to the Plan. These may be initiated by the Council or by private request.

1.4 History of the Plan

The Wairau/Awatere Plan replaces the following District Schemes prepared under the Town and Country Planning Act 1977 and deemed to be sections of the Operative Transitional Marlborough District Plan under the Act:

- The County of Marlborough: Marlborough Division District Scheme.
- The County of Marlborough: Wairau Plains Section.
- The County of Marlborough: Awatere Division District Scheme.
- The Borough of Blenheim District Scheme.

The Wairau/Awatere Plan also replaces the following Regional Plans:

- The Wairau River Floodways Management Plan, 1994.
- The Marlborough Resource Management Plan, Land Disturbance Control, 1995.
- The Nelson/Marlborough Regional Council Transitional Regional Plan, 1991.
- Marlborough United Council Regional Planning Scheme, 1982.

1.5 How the Wairau/Awatere Resource Management Plan Works

The Plan sets out the manner in which the Council intends to deal with its functions under the Act. In doing this, the Plan specifies objectives, policies, rules and other methods, in relation to the resource management issues of the Plan area, to achieve the integrated and sustainable management of natural and physical resources of this part of the District.

In managing the use, development and protection of the natural and physical resources over the next ten years, the Plan must reflect and provide for the principal resource management issues pertaining to the Plan area. The Plan examines and discusses the issues that have been identified by the Community and sets out the objectives and policies in regard to those issues. The objectives are framed as the end state or situation that the Plan aims to achieve. The policies are the course of action being followed through the Plan to achieve the objective.

To achieve the objectives and policies of the Plan, rules are included which prohibit, regulate or allow activities. The Council has adopted the practice of zoning. This technique recognises that different locations within the plan area will have different resources, character and levels of amenity and that the community will seek different environmental outcomes for these areas. The zones provide opportunities for future development in keeping with the character and amenity sought for these different areas. Any particular activity must comply with the rules applicable to the zone in which it is situated, as well as general rules covering a range of matters such as subdivision, heritage values and transportation.

1.6 Plan Structure

The Wairau/Awatere Resource Management Plan comprises three volumes:

Volume One — Contains the introduction to the Plan which incorporates information requirements for resource consent applications, cross boundary matters and monitoring. Volume One contains the issues

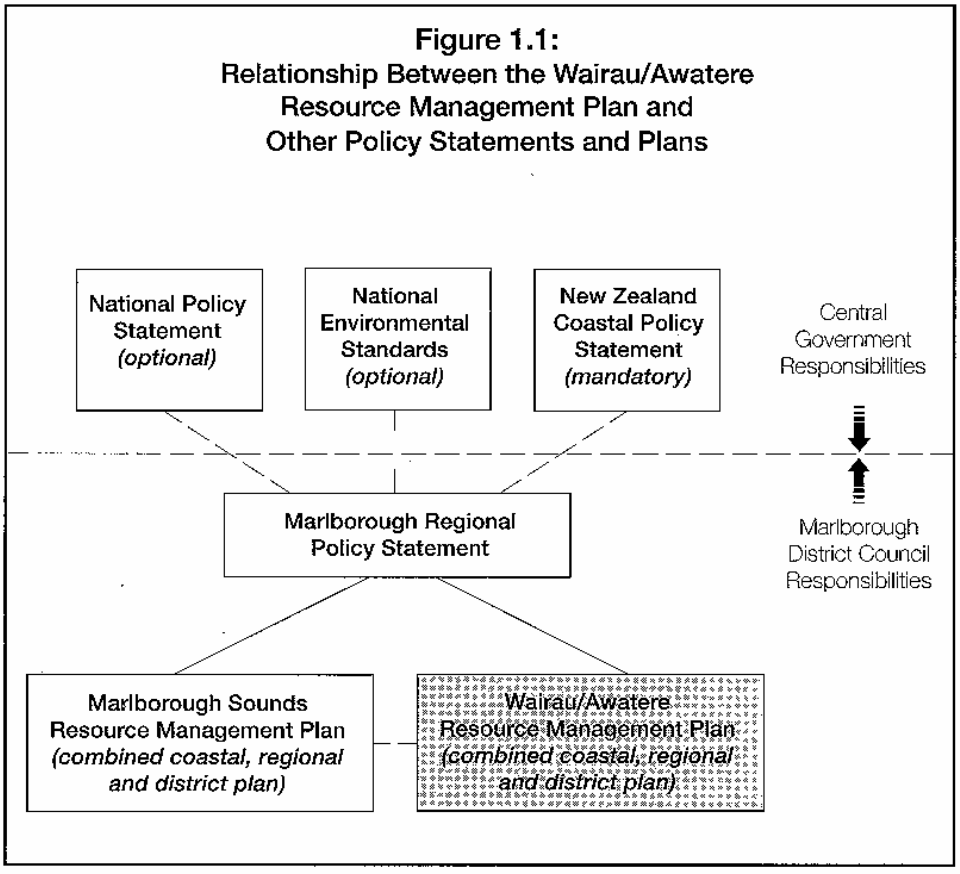
	to be addressed by the Plan as a whole, the objectives, policies and methods to be used in promoting sustainable management of the natural and physical resources of the Wairau/Awatere and the environmental results anticipated from their implementation.
Volume Two	Sets out the rules to achieve the objectives, policies and methods including assessment criteria for those activities which require resource consents. Volume Two also contains the interpretation section which defines the words, terms and phrases used in the Plan.
Volume Three	Contains the planning maps for the Wairau/Awatere Resource Management Plan, which are an integral part of the Plan in that they establish graphically the areas to which the rules set out in Volume Two apply.

1.7 Plan Framework

1.7.1 Relationship Between the Wairau/Awatere Resource Management Plan and Other Policy Statements and Plans Prepared Under the Resource Management Act 1991

Figure 1.1 shows the relationship of the Plan with other policies and plans prepared under the Act. It is important to note that each level of policy or Plan must be consistent with the level above.

Figure 1.1:
Relationship Between the Wairau/Awatere Resource Management Plan and Other Policy Statements and Plans



At the central government level, the Minister for the Environment is responsible for preparing National Policy Statements and National Environmental Standards. Both are optional and as yet none has been prepared. National Policy Statements will guide local government decision making while National Environmental Standards, would through regulations, cover matters requiring a nation-wide approach such as pollution, ballast water, agricultural spray drift or air quality for example.

The New Zealand Coastal Policy Statement is mandatory and was prepared by the Minister of Conservation. This document sets up the framework for managing New Zealand's coastal environment within which local government prepares regional coastal plans.

The Marlborough Regional Policy Statement, which is mandatory, provides an overview of the significant resource management issues of the region and contains the objectives, policies and methods to achieve integrated management of the natural and physical resources of the whole region.

1.7.2 Relationship with Other Legislation

In preparing or changing regional, coastal and district plans, Sections 66(2) and 74(2) of the Act require that the Council must have regard to the following:

- Management plans and strategies prepared under other Acts, in particular Conservation Management Strategies (Conservation Act 1987), Reserve Management Plans (Reserves Act 1977), Land Transport Strategies (Transit New Zealand Act 1989) and Pest Management Strategies (Biosecurity Act 1993);
- Relevant planning documents recognised by an iwi authority affected by this Resource Management Plan;
- Regulations relating to the conservation or management of taiapure fisheries;
- The Crown's interests in land of the Crown in the coastal marine area;
- Relevant entries in the Historic Places Register;
- Regulations made under the Act to the extent that their content has a bearing on resource management issues of the region; and
- The extent to which this Wairau/Awatere Resource Management Plan needs to be consistent with policy statements and plans of adjacent regional councils and territorial authorities.

1.7.3 Coastal Environment

As explained in 1.7.1 the New Zealand Coastal Policy Statement sets out the framework for managing New Zealand's coastal environment. The term 'coastal environment' is not defined in the Act but does have meaning in case law established in previous planning legislation.

For the purposes of this Plan the coastal environment incorporates the environment in which the coast is usually a significant part or element. The coastal environment will vary from place to place, depending upon the extent to which it affects or is (directly) affected by coastal processes and the management issue concerned. It includes three distinct, but interrelated parts:

- The coastal marine area;
- The active coastal zone; and

- The land backdrop.

The coastal environment includes at least the coastal marine area, the water, plants animals, and the atmosphere above it; and all tidal waters and foreshore (whether above or below mean high water springs), dunes, beaches, areas of coastal vegetation and coastal associated animals, areas subject to coastal erosion or flooding, salt marshes, sea cliffs and coastal wetlands including estuaries. It may also include up to the dominant ridge behind the coast, where there are hills behind the coast.

The elements which comprise the coastal environment are inextricably linked, regardless of where they lie in relation to mean high water springs (MHWS), and should be treated as an entity. Important values and issues include natural character, significant areas of flora and fauna, natural features and landscapes, cultural values, public access and natural coastal hazards. It would be difficult to effectively manage those qualities, which exist within the coastal marine area, in isolation from those existing on the land.

1.8 Regional Coastal Plan

Section 28 of the Act requires the Minister of Conservation to approve a Regional Coastal Plan. In this Plan the Regional Coastal Plan is comprised of provisions contained within the following parts of the plan which relate to the coastal marine area:

- Volume One — Chapter 9.0, Coastal Marine
  - Chapter 10.0, Natural Character
  - Chapter 12.8, Lake Grassmere Salt Works Area to the extent that the provisions apply to the coastal marine area
  - Chapter 17.4, Coastal Hazards
- Volume Two — Coastal Marine Zone
  - Port Zone
  - Lake Grassmere Salt Works Zone to the extent that the rules apply to activities occurring in the coastal marine area.
  - Appendix D - Areas of Significant Conservation Value
- Volume Three — Planning Maps

That part of Chapter 17 which relates to the management of coastal hazard and the rules for the Coastal Marine Zone and Port Zone contained in Volume Two set out the circumstances in which activities that have a significant or irreversible effect on the coastal marine area will be made restricted coastal activities:

Applications for restricted coastal activities are made to the Council, but the Minister of Conservation makes the final decision, after receiving a recommendation from a Hearings Committee arranged by the Council. The Minister has discretion to grant or refuse consent. Conditions of any type authorised by the Act (including financial contributions) may be imposed if consent is granted.

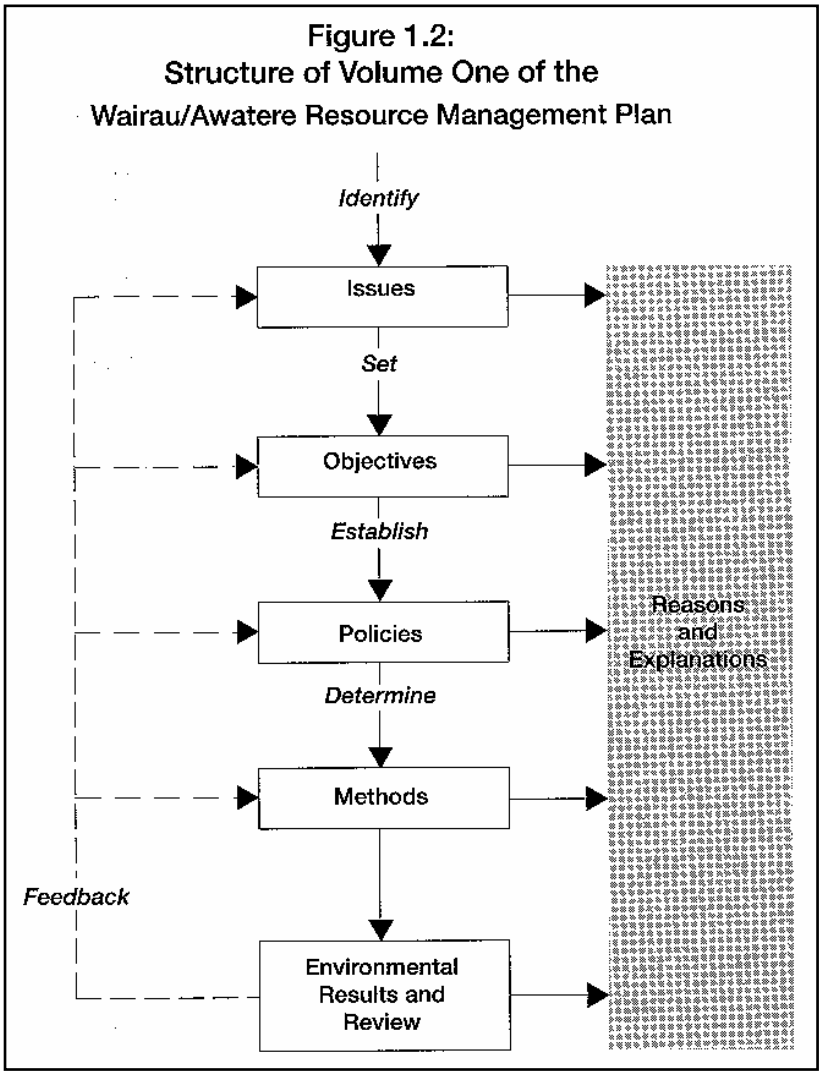
1.9 Structure of Volume One

Sections 67 and 75 of the Act set out the matters to be addressed in Regional and District Plans. The matters dealt with in the greater part of Volume One of the Wairau/Awatere Resource Management Plan are shown diagrammatically in Figure 1.2. This Chapter (Introduction) also contains sections on information requirements for resource consent applications, cross boundary issues and monitoring.

1.9.1 Section 5 RMA Framework for Objectives and Policies

Volume One contains objectives and policies to address issues. These must all be read and interpreted in the context of promoting the sustainable management of natural and physical resources. Sustainable management is defined in the Act as 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 sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and, safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and, avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Figure 1.2:
Structure of Volume One of the
Wairau/Awatere Resource Management Plan



1.9.2 Integration

The provisions of each chapter of this Plan are to be read in conjunction with all other relevant provisions of the Wairau/Awatere Resource Management Plan. For the purposes of clarity, where inconsistency between provisions may exist then the more stringent of the provisions in question will take precedence.

1.10 Cross Boundary Issues

For the administrative purposes of local government and resource management the Marlborough District Council is a unitary authority having the powers and functions of both a regional council and a district council. This gives the Council responsibility for the sustainable management of resource use and the effects of resource using activities within Marlborough. This situation reduces the potential for cross boundary issues, but does not completely avoid their occurrence.

Cross boundary issues can arise from:

- Differences in polices and methods between adjoining plans or Councils;
- Adverse effects of activities in adjoining areas; and/or
- Different community aspirations and goals in adjoining areas.

Councils which adjoin the Wairau/Awatere planning area include: The Canterbury Regional Council; Kaikoura, Tasman, Hurunui District Councils; Nelson City, and the remainder of the Marlborough District. Like Marlborough, Tasman and Nelson are unitary authorities. As well as geographical boundaries with adjoining Councils the Plan also needs to address administrative cross boundary issues. These issues arise from dealings with bodies having statutory responsibilities for activities with implications for sustainable resource management. These bodies include: Department of Conservation, Ministry of Fisheries, The Fish and Game Council, Maritime Safety Authority and the Ministry of Transport.

Under the Act the Mean High Water Spring (MHWS) boundary separates the primary management responsibilities for the land and water of the coast between agencies. The Council, in conjunction with the Minister of Conservation is responsible for the management of the Coastal Marine Area (CMA). Landward of mean high water springs the relationship does not occur and the Council has full responsibility for sustainable management of the natural and physical resources.

The Council will continue to advise the community about its role and responsibilities for the sustainable management of the natural and physical resources of the Wairau/Awatere, and the links it has with other administrative agencies and interest groups. The Council will also continue to liaise with other agencies and interest groups having responsibility for either managing or using the natural and physical resources of the Wairau/Awatere.

Sections 67(2)(f) and 75(2)(f) of the Act requires this Plan to set out the process to resolve cross boundary issues. This section of the Plan details the process to ensure:

- Cross boundary issues are identified;
- Processes for dealing with cross boundary issues are developed; and the
- Effects of cross boundary issues are avoided, remedied or mitigated.

To address cross boundary issues the Council will adopt the following methods:

(a) Monitoring

To identify resource management issues which have cross boundary implications.

(b) Consultation

To consult with central government and adjoining territorial authorities on cross boundary issues.

(c) Protocols

To establish, in conjunction with central government and other local authorities, mechanisms for the identification, discussion and resolution of cross boundary issues.

(d) Liaison

To establish, where appropriate, with central government and other local authorities joint working groups, joint committees and other co-operative systems for dealing with and resolving cross boundary issues.

(e) Resource Consent Applications, Plan Changes

To use, where appropriate, the provisions in the Act for joint hearings when applications are made to two or more consent authorities for resource consents for the same activity.

Most planning matters and resource consents are unlikely to have cross boundary effects. However, where an activity requires plan changes or resource consents near the Plan boundary and there is the potential for effects to be felt beyond the Plan area, the Council will:

- Serve copies of applications and requests on adjoining Councils;
- Promote and facilitate pre-hearing meetings;
- Promote and facilitate joint and combined hearings to involve the adjoining Council in the decision making process; and
- Notify in terms of consultation under the First Schedule of the Act, the affected community of interest even if this extends beyond the boundaries of this Plan.

(f) Advocacy

To promote the Marlborough District Council perspective on resource management issues to adjoining local authorities and central government including, where appropriate, making submissions on proposed national policy statements, and policy statements of adjoining territorial authorities.

(g) Implementation

To actively monitor any requirement for plan changes to the plan to address cross boundary issues, and make application for such changes in a timely fashion.

1.11 Information Requirements

The Act sets out requirements for information to accompany resource consent applications in Section 88 and the Fourth Schedule of the Act. To ensure adverse effects on the environment are adequately considered, the Council will also develop activity specific information requirements.

The type and level of detail of information required will vary according to the type, scale and frequency of anticipated effects; the sensitivity of the receiving environment; and the presence of special values at a site. Therefore, applicants should discuss their information requirements with the Council staff prior to lodging a formal application for a resource consent. With any application, sufficient information is required to enable understanding of the:

- Type, nature, and scale of the proposed activity, including its intended location;
- Type, nature, intensity, frequency and impact of anticipated effects of the proposed activity, together with ways it is proposed to mitigate those effects;
- Level and nature of environmental risk associated with the activity;
- Alternative locations or methods, as well as an explanation for choosing the selected option; and
- consultation undertaken and the attitude of those consulted toward the Proposed activity.

Without limiting the scope of the requirements for provision of information, all applications for resource consents shall provide the following information:

- Outline of the activity;
- Description of the characteristics of the site and location;
- Map of the location;
- Explanation of why the location is necessary for the activity;
- Alternative activities, and locations considered;
- Plans showing site activity and where appropriate site contours and vegetation;
- Plans of all structures associated with the activity, at appropriate detail and scale to the proposal;
- Description of how the activity will be undertaken, including construction, operation and maintenance schedules;
- Description of materials to be used by the activity;
- Other consents required by this Plan or any other plan prepared under the Act; and
- Access location in relation to other accesses, road intersections and topographical features within 500m of the access.

Volume Two of this Plan defines assessment criteria for specific activities. The Plan emphasis is on defining these assessment criteria rather than consent application information requirements. In this way resource consent applicants can understand how their application will be assessed, and therefore they are better able to determine the appropriate information required for that assessment.

Processing applications will be delayed where the information supplied is insufficient to allow understanding of the nature of the activity or its effects. This delay will continue until sufficient information is received. Section 92 of the Act enables the Council to require further information before processing an application for a resource consent. Also, the Council may commission a report on any matters raised in relation to an application. These requirements can only be implemented where it is necessary to enable the Council to better understand the nature of an activity, its effects or ways the effects may be avoided, remedied, or mitigated.

Use of these provisions relating to further information requirements ensures that the Council and the community have adequate information to allow understanding of the nature of proposed activities, their adverse effects, and ways the effects can be avoided, remedied or mitigated.

1.12 Monitoring and Review

The process of monitoring and review are integral to the Council's responsibilities under Sections 30, 31 and 35 of the Act.

Monitoring is an important mechanism for assessing how this Plan and the Council are fulfilling the purpose of the Act promoting sustainable management of the natural and physical resources of the Wairau/Awatere. Monitoring and Review is made up of information collection, recording, analysis and comparison. This process includes gathering information and maintaining records in respect of specific resources, the state of the environment, and the compliance of resource consents with their conditions.

With the number and range of resource management issues, and objectives, policies, and methods relating to the sustainable management of resources that are contained within this Plan, the scope for monitoring is large. However, practical reality means that priorities need to be set for the monitoring program. Monitoring will be prioritised and targeted to:

- Resource components of the Wairau/Awatere environment, including freshwater, coastal and land ecosystems, and air;
- Parameters of community wellbeing; and,
- Deficiencies in existing monitoring programs.

Throughout Volume One of the Plan, 'anticipated environmental results' are specified for groups of linked resource management issues. These results form the basis for the monitoring program.

The monitoring and review program will be undertaken in a comprehensive strategy comprising the following three major components:

- State of the Environment Monitoring which measures existing and cumulative effects, and establishes levels of environmental quality against which future changes can be measured;
- Consent Compliance Monitoring which compares anticipated and actual effects of specifically approved activities; and,
- Plan Achievement Monitoring which assesses the effectiveness of the objectives and policies within this Plan in achieving sustainable resource management.

Using a variety of monitoring procedures, the anticipated environmental results suggest the monitoring strategy will need to include assessment of the Monitoring Factors defined in Table 1.1: Monitoring Factors.

Table 1.1: Monitoring Factors

Resource Issue	Anticipated Environmental Result	Monitoring Factor
water - wetlands, lakes and rivers	protection	water quality contaminants flow level
	provision for use options	abstraction consents
	provision for food gathering provision for recreation	discharges use water quality complaints
	ecological value maintained or enhanced clarity maintained or enhanced	habitat changes defined values turbidity complaints valued species
water - groundwater	maintenance of aquifer	water quality groundwater level
indigenous vegetation, habitats of indigenous fauna	preservation of rare and endangered species diversity of habitats	species numbers distribution
landscape	maintenance of values	consents complaints
tangata whenua	recognition of and where appropriate, provision for traditional relationship	use access complaints
heritage	protection of heritage resources	consents scheduled resources
air	maintenance of high quality	suspended solids carbon monoxide odour lead visibility complaints
public access	maintenance of access	consents complaints
coastal marine	provision for public use where appropriate	users uses
	protection of recreation values	pathogens public use of facilities
	minimal effect from private occupation	consents location
	multiple use of structures	consents location
	marine farms which minimise effects on public use of coast	consents location
	high standard of water quality	pathogens contaminants water quality discharge permits complaints
	minimise alteration	site profile

Table 1.1: Monitoring Factors		
Resource Issue	**Anticipated Environmental Result**	**Monitoring Factor**
natural character	preservation of values	defined significant areas and elements consents
urban environment	an appropriate urban form	population employment commerce location
	maintenance of existing residential character	consents complaints
	appropriate levels of activities in rural townships	consents
rural environment	maintenance or enhancement of character maintenance or enhancement of amenity	land use vegetation cover
	provision for diversity	activity consents
	appropriate levels of subdivision	lot size consents
	provision for wellbeing	employment income facilities services
open space	provision of valued characteristics	users facilities
land disturbance	minimise adverse environmental effects of land disturbance	soil quality water sedimentation complaints
	protect historical values protect and provide for cultural values protect archaeological values	consents notice of disturbance complaints
discharge of waste to land	water free from contamination	water quality soil quality
	protection of amenity values	consents complaints
	waste reduction	landfill material landfill volume
undesirable plants and animals	reduced spread	species numbers location
natural hazards	minimise adverse effects and risk from resource use	damage personal injury and death consents
	collate information	consents requests
	provision of event responses	warning
hazardous substances and facilities	safe use safe storage safe transport	community health disposal consents
	minimise site contamination	contaminants soil quality water quality consents

Table 1.1: Monitoring Factors		
Resource Issue	**Anticipated Environmental Result**	**Monitoring Factor**
land transport	safe and efficient transport system	traffic accidents
	environmental effects minimised	consents complaints
network utilities	provision of services provision of facilities	consents community health
outdoor advertising	minimise safety effects provision for convenience maintain amenity provision of information	consents accidents complaints facilities
noise	provision for individual health provision for community health	ambient (background) noise consents complaints
subdivision	protection of natural character conservation of open space	consents financial contributions reserves
	provide for and minimise effects on infrastructure	facilities reserves

The annual monitoring program will be specified in the Annual Plan, each financial year. Changes in funding availability, work priority, and response to particular situations will influence the specific content of the monitoring program in any particular year. Continuing analysis of monitoring data will enable an assessment of the appropriateness of the monitoring being undertaken and whether it is providing information appropriate to assessment of the effectiveness of the achievement of the plan objectives and policies.

Monitoring results may indicate where some of the objectives, policies and methods of the Plan require modification prior to a full review. Should this become necessary, the Council shall change the Plan in accordance with the plan change procedures contained within the First Schedule of the Act.

The Council has powers under Part XII of the Act to require persons to cease or not commence any activity which is or is likely to:

- Contravene the Act, any regulation, a rule in this Plan, or resource consent; or
- Be noxious, dangerous, offensive, or objectionable to such an extent that it has or is likely to have an adverse effect on the environment.

Under Section 38 of the Act the Council can authorise officers to carry out the functions and powers of Enforcement Officers. Enforcement Officers may serve abatement notices against persons who are breaching the Act, a rule in the Plan or a resource consent, or operating in a manner which is having an adverse effect on the environment. In relation to noise, an abatement notice may require the adoption of the best practicable option to ensure that the emission of noise from land or water does not exceed a reasonable level. If abatement notices are not acted upon, the Environment Court may issue an enforcement order requiring compliance.

1.13 Section 32 Requirements

Section 32 of the Act requires the Council to assess the extent to which an objective, policy, rule, or other method is necessary in achieving the purpose of the Act. It also requires other alternatives to be assessed, and costs and benefits weighed up.

The Marlborough District Council considers that it has fulfilled its duties under Section 32 of the Act in the preparation of this Plan. Explanations, which incorporate principle reasons for adopting objectives, policies and methods (including rules) are contained throughout Volume One of the Plan. Much more detailed internal reports have been prepared by the Council on various topics which outline the reasons for approaches undertaken.

In general, the Marlborough District Council has sought to infuse the spirit of Section 32 throughout the process of preparing this plan.

2.0 Tangata Whenua

2.1 Tangata Whenua

The Resource Management Act 1991 (the Act) requires that the Council recognises and provides for the relationship of Maori with their ancestral lands, water, sites, waahi tapu and other taonga. It further requires the Council to have particular regard to Kaitiakitanga, and to take into account the principles of the Treaty of Waitangi. The Council's own Regional Policy Statement includes the principle to incorporate, where appropriate, the aspirations, heritage and values of the iwi of Marlborough, and Ngai Tahu (whose rohe extends to Te Parinui o Whiti, a point on the coastline of Cloudy Bay at the south-eastern end of Big Lagoon, north-west of White Bluffs), into resource management decision making.

Kaitiakitanga is the traditional practice of managing resources so as to conserve and protect them. As a concept, it is based on spiritual, social and economic associations with these resources, and includes tribal rights to the use of an area. The management practices embodied in the application of Kaitiakitanga are very much in keeping with the philosophy behind the Act. In particular Kaitiakitanga provides for the restoration of ecological harmony, the efficient use of resources and provision for the needs of both present and future generations.

Tangata whenua are kaitiaki (or guardians) of their natural resources. As such they have the responsibility to ensure that the mauri (or life essence) of these resources is protected. The mauri of a resource embodies a spiritual as well as a physical essence. From the Maori perspective, damage to resources also carries spiritual damage.

It is even possible to damage resources (eg; through pollution or despoliation) to the extent that they can lose their mauri entirely. Protecting the mauri ensures the maintenance of its integrity and protection of supply for future generations.

The concept of mauri therefore imposes a discipline on tangata whenua as kaitiaki, and because of their spiritual, social and economic connection to the resource, it is kaitiaki who have the responsibility for ensuring that the mauri of the resource is protected. In this sense, the Plan must recognise the role of tangata whenua as kaitiaki for the environment. To this end the Plan endeavours to facilitate that role through a process of integrated management. This section is designed therefore to provide some key overall objectives and some 'management' type policies, perhaps not adequately covered by other objectives, policies or methods.

2.1.1 Issue

Potential for not recognising Maori values and exclusion of iwi in the use, development and protection of all resources, including traditional resources.

Issues seen as important to iwi are:

- Exclusion from the decision making process;
- Proliferation, abuse and over use of resources;
- Recognition of the Maori holistic systems of values within resource management decision making. These values being:
  - Te Taha o Te Ao (environment); and
  - Te Taha Hinengaro (mental well being);

  - Te Taha Wairua (spiritual and customary values);
  - Te Taha Tinana (healthy body); and
  - Te Taha Whanau (family).
- Exclusion from the use, development and protection of traditional resources;
- Degradation of water quality as a result of pollution;
- Damage and destruction of waahi tapu and areas of special interest;
- Introduction of new species into existing ecosystems;
- Pollution of all resources; and
- Uncontrolled waste disposal.

In general, iwi issues sit alongside resource management issues. A number of iwi concerns are addressed directly within the relevant sections of this Plan. For example, concerns relating to the degradation of water quality. Other issues of importance to iwi are addressed below.

2.1.2 Objectives and Policies

Objective 1	**Recognition and provision for the relationship of Maori to their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taonga.**
Policy 1.1	Recognise and protect sites of significance to tangata whenua, including waahi tapu, mahinga maataitai, tauranga waka and areas of taonga raranga.
Policy 1.2	Recognise values important to tangata whenua, including the concepts of mauri, effects on the mana of iwi or hapu, and the ability of tangata whenua to provide manaakitanga.
Policy 1.3	Recognise the role of tangata whenua as kaitiaki in the coastal marine area.
Policy 1.4	Recognise and provide for continued tangata whenua access to, and use of, traditional coastal resources such as maataitai and taonga raranga.
Policy 1.5	Promote access for iwi to sites of cultural significance on land of the crown or other publicly owned land.
Policy 1.6	Facilitate development of marae.
Policy 1.7	Maintain and facilitate communication with iwi representatives to ensure that where appropriate, issues of importance to iwi are drawn to the Council's attention.

Individual areas have special significance for each iwi. For example, the Wairau Lagoons have significant values for iwi.

Notwithstanding the requirements of the Act, the Council is committed to sustainable management of the resources of the Plan area and wherever practicable to a partnership with Maori on all matters of common interest.

The above policies are a way in which the Plan can assist in recognising and providing for matters of concern to the tangata whenua. The Plan also endeavours to carry these and other principles forward to the construction of other elements of the Plan.

2.1.3 Methods of Implementation

Management	Where a resource consent application is in or immediately adjacent to a site of significance to tangata whenua, the applicant may be asked to notify and consult directly with the affected tangata whenua to determine whether the granting of the resource consent would have any adverse effects on the values that give the site significance to the tangata whenua; and how any actual or potential adverse effects which might result from the activity could, in the view of the tangata whenua, be avoided, remedied or mitigated.
Specific Recognition	Specific recognition in the Plan rules will be accorded to the existing marae within the Plan area. (Omaka, Wairau)

Sites of significance include waahi tapu, tauranga waka, mahinga maataitai and areas of taonga raranga. Resource consent applications could potentially affect the values of sites which are of significance to tangata whenua, (for example an activity which disturbs the seabed could affect the fisheries values of mahinga maataitai). The applicant will need to show whether any actual or potential adverse effects can be avoided, remedied or mitigated (in that order of priority). This could be achieved through changes in design of the proposal, negotiation with tangata whenua over appropriate compensation, or conditions on the resource consent. The tangata whenua group affected may be an iwi authority, but is more likely to be a smaller group such as a land-owning trust, a hapu, or a whanau.

The marae are active living centres of the Maori community with potential for development and change.

The range of activities undertaken on marae is expected to be wider than, for example, residential sites. It is considered that zonings (Residential or Rural) may unduly hinder the functioning and development of marae. It is considered to be necessary and appropriate to provide for special 'marae' identification with sufficient flexibility to enable marae to function and develop whilst protecting important amenities of surrounding environments.

2.2 Anticipated Environmental Results

Implementation of the policies and methods relating to tangata whenua will result in:

- The maintenance and enhancement of the relationship of tangata whenua to their culture and traditions.

3.0 Heritage

3.1 Introduction

Heritage resources contribute to environmental quality, and consequently the community's wellbeing, in many ways. The International Council on Monuments and Sites (ICOMOS) New Zealand Charter for the Conservation of Places of Cultural Heritage Value describes places of cultural heritage value:

"In general such places:

i Have lasting values and can be appreciated in their own right;

ii Teach us about the past and the culture of those who came before us;

iii Provide the context for community identity whereby people relate to the land and to those who have gone before;

iv Provide variety and contrast in the modern world and a measure against which we can compare the achievements of today; and

v Provide visible evidence of the continuity between past, present and future."

In addition, the heritage resources of the Plan area are becoming increasingly important as tourism grows, bringing with it the advantage of commercial support for enhancement of the historical environment.

Together, the Historic Places Act 1993 and the Resource Management Act 1991 provide an overlapping set of protections for historical places. The Historic Places Act 1993 provides protection of historic places (including buildings) and waahi tapu during the registration process and general authority requirement for archaeological sites, and allows for covenants to be placed on land titles. Under Section 10 of the Historic Places Act no archaeological sites (whether recorded, unrecorded or registered) can be destroyed, damaged or modified without consent of the New Zealand Historic Places Trust. Section 22 of the Historic Places Act requires the Trust to establish and maintain a register of historic places and areas, and waahi tapu and waahi tapu areas. Registration of an item by the Trust only provides protection during the limited interim registration phase. Rather the register is an advocacy tool, which the Trust is required to maintain and supply to the Council. One of the purposes of the Register is to assist historic places, historic areas, waahi tapu and waahi tapu areas to be protected under the Resource Management Act 1991. The Resource Management Act 1991 also provides a regime for protection through heritage orders which can be implemented by the New Zealand Historic Places Trust or other 'heritage protection authorities'.

Heritage protection is an ongoing process. The New Zealand Historic Places Trust, the Council and the community need to be able to assess heritage resources, indicate their importance and assign them different levels of protection. Heritage resources need to be reassessed from time to time so that as time passes new items can be protected and older or scarcer items can be given more protection.

Heritage resources are often fragile and may be adversely affected by activities, development or lack of care and maintenance. The challenge is to manage change, recognising the need to allow communities to alter and grow, while ensuring that significant heritage resources are retained for both present and future generations. However, it needs to be recognised that protection of heritage resources provides a range of (sometimes conflicting) interests and requirements. Interests of private owners need to be considered as do the financial and other practical requirements for

protection. Protection should be promoted, but it will not always be possible or feasible, nor does the relevant legislation require this.

3.2 Issue

Retaining a sense of the cultural heritage that contributes to the character of the Wairau/Awatere area

In managing the use and development of the natural and physical resources, regard must be given to the cultural heritage resources and values which contribute to the character of the Plan area. To give effect to this obligation the Plan must:

- Identify those heritage resources which contribute to the character of the Plan area and therefore need to be retained; and
- Adopt suitable measures to secure the preservation of the identified heritage resources.

The Council, along with the community, has the responsibility to ensure that heritage resources are protected and retained for future generations.

The New Zealand Coastal Policy Statement defines the Council's heritage role in respect of the coastal environment. Heritage values are referred to in the general principles section of the NZCPS and again at Policy 1.1.3 and Section 3.1.2. Policy 1.1.3 requires as a national priority that appropriate recognition and provision be given to characteristics of special spiritual, historical or cultural significance to Maori and significant places or areas of historic or cultural significance. Section 3.1.2 of the NZCPS requires the identification of, and that appropriate protection be given to historic areas and areas of cultural significance. The Historic Places Act also controls any land disturbance modification of archaeological sites (Maori and non-Maori) which predate 1900.

3.3 Objectives and Policies

Objective 1	**The protection or preservation of heritage resources, in appropriate cases, including: historic buildings, places and sites, waahi tapu, archaeological sites and areas, and heritage trees.**
Policy 1.1	Recognise the heritage resources which have been identified and provide the necessary protection to avoid, remedy or mitigate any adverse effects of activities on these resources.
Policy 1.2	Research and assess additional items of heritage value in the Wairau/Awatere Plan area (of local significance) in consultation with iwi and the Historic Places Trust, NZ Archaeological Association, and the Department of Conservation.
Policy 1.3	Provide incentives for the conservation of all heritage resources.
Policy 1.4	Consider favourably proposed uses of scheduled heritage resources which may not be permitted as of right on the site concerned but which will encourage preservation and maintenance of the item.

Policy 1.5 Ensure that regard is had for heritage and conservation with all subdivision, use and development in the Wairau/Awatere area.

The heritage resources of the Wairau/Awatere area are an important contributor to the character of the area. The policies work towards ensuring that they are retained and appreciated by present and future generations.

3.4 Methods of Implementation

Schedule

The Council will maintain a register of significant heritage resources in accordance with Section 7.3.4(b) of the Marlborough Regional Policy Statement and will include this as an appendix to this Plan (Volume Two, Appendix A).

Resources registered will include those on the Historic Places Trust Register (established under Section 22 of the Historic Places Act 1993), heritage trees (as identified by the Royal New Zealand Institute of Horticulture (Inc)), a number of items identified by previous planning schemes and any other item incorporated in the Plan in terms of the criteria specified below. These criteria enable the Council or interested parties (eg: local iwi, property owners) to identify places or objects with heritage value and have them registered through the plan process.

Known archaeological sites (as supplied by the Department of Conservation and the New Zealand Archaeological Association Site Record files) are included on the Council's register of heritage resources. However, they have not been included in the Appendix to this Plan for reasons of cultural sensitivity. Information on archaeological sites is available from the Council, the Department of Conservation, the New Zealand Archaeological Association and iwi.

The register will include an indication of the importance of the item to the community in order for different levels of protection to be assigned. The schedule (refer Volume Two, Appendix A) includes these classifications.

Items so registered will be subject to special controls and procedures as specified in the rules. They may also be eligible to receive the benefits provided by the incentives outlined below.

Where items are to be added (or deleted as appropriate) to the Schedule in Appendix A of Volume Two, this shall be done through the plan change process, as provided for in the First Schedule to the Resource Management Act 1991.

Criteria for Identifying Specific Heritage Resources

Criteria for selection of places or objects:

(a) Whether the place or object has value as a local landmark, over a length of time;

(b) Whether the place or object has historic association with a person or event of note, or has strong public association for any reason;

(c) Whether the place or object reflects past skills, style or workmanship which would make it of educational or architectural value;

(d) Whether the place or object is unique or rare, or a work of art;

(e) Whether the place or object is important to tangata whenua;

(f) Whether the place or object is physically prominent or well sited;

(g) Whether the place, as a whole, rather than in separate units, reflects a townscape which has developed in earlier years and has value for the Plan area both now and in the future;

(h) Whether the place or object forms part of a precinct or area of heritage value.

Criteria for identifying heritage trees

Criteria for selection of heritage trees (notable and historic trees):

(a) Any tree commemorating an important local event either in Maori or European history, settlement and development;

(b) Any tree that is regarded as an important landmark and has been acknowledged as such for a significant period of time;

(c) Any tree that has historic association with a well-known public figure or has had strong public association for some reason;

(d) Any rare or important species; A stand of trees conforming to the above;

(e) A stand of trees conforming to the above.

Rules	The inclusion of rules to protect scheduled heritage resources from damage or destruction. Different levels of protection will be attached to the various types of heritage resources and the differing classifications based on the heritage value or importance of the resource. The maintenance and minor alteration of heritage resources will be allowed for in order to ensure that heritage features are sustained and continue to provide a useful resource to the community. The subdivision of land will be controlled to prevent the separation of any land which is closely associated with the significance/value of a heritage resource.
Incentives	The provision of incentives to promote the protection of scheduled and any other heritage resources. Any other heritage resources means any non-scheduled item which can be shown to meet some or all of the criteria for identifying heritage resources. Incentives will be investigated further and may include:

	• Waiving resource consent application fees; • Permitting alternative uses of buildings to encourage the retention of heritage features (scheduled heritage resources only), refer to Policy 1.4; • Consider waiving development contributions where property development incorporates the protection of a scheduled heritage resource (scheduled heritage resources only); • Through the annual planning process, consider granting reductions in rating for properties where heritage resources are protected through either rules in this Plan or by a Heritage Order under the Resource Management Act; • Consider providing development incentives to encourage the community, in particular the owners of heritage properties, to retain heritage resources; Heritage award programme (through the annual planning process).
Education	Promote and encourage public awareness of heritage resources and the importance of retaining them for the future, through the provision of information.
Management	The Council will implement appropriate administration procedures to ensure all development and building proposals in the vicinity of recorded archaeological sites are notified to the Historic Places Trust, in order to enable the implementation of archaeological authority provisions of the Historic Places Act 1993.
Heritage Orders	The use of heritage orders as a means to avoid, remedy or mitigate adverse effects of activities on heritage resources. A heritage order may be imposed by a heritage protection authority, under Sections 189 and 189A of the Act, to intervene in a situation where a valuable heritage resource is in imminent danger of damage, destruction or major modification. A heritage order is independent of the Plan's rules on heritage protection. They operate in a similar way to the designation process. The Council shall apply the heritage order provisions of the Act, either itself as a heritage protection authority or at the request of another recognised heritage protection authority, in order to ensure that a heritage resource is protected from impending damage. To enable the Council to carry out the regulatory procedures of Section 189 provision or contingency will be made within the Annual Plan. The Council will assist other heritage protection authorities through the provision of information, advice and will consider waiving fees relating to heritage order requirements under Section 36(4) of the Resource Management Act. All places or objects subject to a heritage order will be included in the schedule of heritage resources in this Plan and are shown on the planning maps. Thus these items will be subjected to the rules which relate to scheduled items so long as they are consistent with the heritage order. In addition, they may also be the subject of any further controls by the heritage order, due to the requirements of Sections 193 and 193A of the Act. That being the written consent of the relevant heritage protection authority prior to

	undertaking any activity which might affect the heritage order or the resource which is subject to the order. Interim protection measures for heritage resources subject to a heritage protection authority application under Section 188 of the Resource Management Act 1991 will be provided in the Plan by requiring that any work on a heritage place that is subject to a heritage protection authority application under Section 187(d) of the Act, will require a resource consent.
LIM	The Council will integrate site information into the Land Information Memoranda

The combination of rules, incentives and heritage orders will promote both the preservation of important heritage resources and the community's appreciation of heritage values.

3.5 Anticipated Environmental Results

Implementation of the policies and methods relating to culture and heritage values will result in:

- The preservation of the heritage resources of the Wairau/Awatere; and
- The appreciation and enjoyment of the Wairau/Awatere heritage by the community.

4.0 Flora and Fauna and their Habitats

4.1 Introduction

Section 6(c) of the Resource Management Act 1991 requires that this Plan recognises and provides for …"*the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna."* This acknowledges the contribution of native plants and animals to natural character and their importance in the functioning of natural ecosystems.

Furthermore, particular regard should be given to the intrinsic value of ecosystems and protection of the habitat of trout and salmon (Sections 7(d) and 7(h) respectively).

The New Zealand Coastal Policy Statement contains a number of policies that make it a national priority to preserve the natural character of the coastal environment. This includes protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna in the coastal environment (Policy 1.1.2). The policy identifies the priorities to be afforded to different types of areas and habitats. For example, the potential or actual adverse effects of activities on habitats/areas of species, which in a national context are vulnerable, are to be avoided. For other specified areas, the remedying of any actual or potential effects of activities on them is provided for.

For the purposes of this part of the Plan ecosystems have been divided into land based (or terrestrial) and fresh water based ecosystems. However, because the coastal environment includes land above mean high water springs, the New Zealand Coastal Policy Statement also has relevance in the consideration of land-based ecosystems. Coastal Marine ecosystems and those in the coastal environment are discussed in Chapter 9.

4.2 Terrestrial Ecosystems

4.2.1 Issue

Degradation of indigenous flora and fauna and their habitats.

The land ecosystems in the Wairau/Awatere can be conveniently separated into upland and lowland ecosystems for the purposes of consideration. Land or terrestrial ecosystems include, soil, plant and animal organisms that live within these ecosystems. Each ecosystem provides a unique habitat for different plants and animals.

Upland ecosystems

For the purposes of this Plan, upland ecosystems are defined as those that are located at altitudes generally above 1000 m. Some of the most significant indigenous upland ecosystems in New Zealand are found in the hill country and on the crests of ranges. In Marlborough, upland ecosystems have significant natural values given the high natural diversity of plants and animals which exist within them.

Lowland ecosystems

For the purposes of the plan lowland ecosystems are generally located at altitudes below 1000 m. Lowland ecosystems generally support a high diversity of plant and animal life but are also most affected by human activities and pests. Draining of wetlands to produce farmland has accounted for a significant loss from total area of the indigenous lowland ecosystems in Marlborough. Of the remaining unmodified lowland habitats found in Marlborough, a significant proportion remain unprotected, including wetlands, shrublands, dunelands, and other herb communities.

The Wairau/Awatere Plan area is one of five important areas in New Zealand, where a large number of locally endemic plants and animals (lizards and invertebrates) have evolved and do not occur naturally anywhere else in the world. These are typically dry country communities. Numbers have declined since human occupation. Some plant species now only continue to survive through their relative inaccessibility high on bluffs and other rockland areas.

The plan area is also notable for the ecologically important regenerating shrublands and areas of indigenous vegetation, particularly those on ultramafic, calcareous and alluvial soils. Given the extent of modification of natural communities within the plan area, indigenous forest is now considered rare. Early occupation coupled with the relative accessibility of much of the Wairau/Awatere area led to widespread removal and modification of the original vegetation cover. Because modification for pastoral development was relatively easier than other parts of the country, proportionally greater areas above 1000 metres have been retained in private use. The removal of vegetation, the easily eroded rock types and slower recovery rates in the drier climate and major competition from exotic species has produced widespread loss of habitat. As a result, the distribution of remaining endemic species has become fragmented.

Key Values and Threats To Upland Ecosystems	
Major Values	**Major Threats**
Mt Richmond	
large contiguous forest tract, habitat for wide ranging bird species	goats, possums
numerous endemic plants	goats
Powelliphanta hochstetteri consobrina land snails	pigs
ultramafic plant communities and threatened endemic species	goats, wilding pines, invasive plant pests
remote experience recreation opportunities	track development, concessions
Inland Marlborough	
large extensive beech forests in the west	fire, goats
tussock habitat essential for vulnerable birds such as kea and falcon	development, pines invasive plant species eg Hieracium
extensive tall tussock associations	development, pines invasive plant species
scree communities with endemic species	chamois, sheep, goats, invasive plant species invasive plant species, eg Hieracium
Western Molesworth	
unique communities of plants and animals at Sedgemere tarns	stock, aquatic plant pests, Canada geese, oversowing
northern limits for a range of species	stock, goats, rabbits

Key Values and Threats To Upland Ecosystems	
Major Values	**Major Threats**
threatened scree skink	habitat destruction, rabbits, pigs
alpine tussock land habitat for vulnerable wide ranging species such as falcon	fire
remnant stands of beech	stock, goats, fire, plant pests
scree and rocky alpine fell field plant communities with Inland Marlborough endemics	goats, stock
remote recreation opportunities	better access, facilities
historical structures	lack of maintenance
Inland Kaikoura Ranges	
very high plant diversity	browsers
regionally threatened plants at Isolated Hill	goats, possums, stock, pigs, plant pests
habitat for the rare scree skink at Isolated Hill	goats, possums, stock, plant pests
bluff weta of unknown status	rats, stoats
unique limestone communities with endemics and vulnerable species	goats, sheep
extensive scree and alpine fell field plant communities	goats, chamois, sheep
endemic bluff plant communities	plant pests, goats, stock
sub-alpine shrublands with a suite of threatened endemic plants	goats, stock, pines
remote recreation in a tussock land setting	access, fire

Key Values and Threats To Lowland Ecosystems	
Major Values	**Major Threats**
dry shrubland communities	development, plant pests, rabbits
unique community supporting *Carex inopinata* at Kowhai Point Scenic Reserve	visitor use
locally endemic red rock daisy at Little Haldon Hills	stock, clearance
unique plant community on lowland limestone at Isolated Hill	stock, goats, possums
alluvial podocarp forest remnants at Onamalutu	none
forest remnants on Wairau River	clearance, stock
regionally endemic communities on riversides and bluffs	spraying, stock, goats
threatened endemic *Australopyrum* wheatgrass on the Leatham limestone belt	stock
alluvial ultramafic vegetation, upper Wairau	drainage, development

4.2.2 Objectives and Policies

Objective 1	**The protection of areas of significant indigenous vegetation and habitats**
Policy 1.1	The Council will recognise and protect, and where appropriate enhance, areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Policy 1.2	Maintain or enhance indigenous vegetation and habitats and encourage and support voluntary restoration.
Policy 1.3	Maintain controls on land disturbance operations and discourage use of fire where significant environmental damage will result.
Policy 1.4	Avoid, remedy or mitigate the effects of land use activities which are detrimental to natural values.
Policy 1.5	Promote and where appropriate implement management options to achieve protection for areas of significant indigenous vegetation and significant habitats of indigenous fauna, including where appropriate, the establishment of reserves.
Policy 1.6	Promote landowner and public understanding of the range of management options available to achieve protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.
Policy 1.7	Promote landowner and public understanding of the importance of protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna because of their intrinsic, conservation, social, economic, scientific, cultural and educational worth, and for their contribution to natural character.
Policy 1.8	The following criteria will be used to determine sites of significance: • Representativeness; • Rarity; • Diversity and pattern; • Distinctiveness/special ecological characteristics; • Size and shape; • Connectivity; and • Sustainability. (For the purposes of this policy, Appendix C to Volume One sets out guidelines for the application of ecological significance criteria in assessing a site.)
Policy 1.9	Maintain an effective strategy for the containment/eradication of undesirable animals and plants.
Policy 1.10	Encourage the conservation management of high country grasslands and alpine herbfields.
Policy 1.11	To provide for the protection of natural wetland

Policy 1.12	The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where: (a) the loss of extent or values arises from any of the following: (i) the customary harvest of food or resources undertaken in accordance with tikanga Māori (ii) restoration activities (iii) scientific research (iv) the sustainable harvest of sphagnum moss (v) the construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020) (vi) the maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020) (vii) natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020); or (b) the Council is satisfied that: (i) the activity is necessary for the construction or upgrade of specified infrastructure; and (ii) the specified infrastructure will provide significant national or regional benefits; and (iii) there is a functional need for the specified infrastructure in that location; and (iv) the effects of the activity are managed through applying the effects management hierarchy.
Policy 1.13	To recognise the importance of restoring native riparian vegetation in the restoration and management of wetlands and indigenous aquatic ecosystems.
Policy 1.14	The adverse effects of subdivision, use or development, on areas of significant indigenous vegetation and habitats in the coastal environment, should be avoided as far as practicable. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects to the extent practicable.

The Wairau/Awatere Plan area has been highly modified and therefore the distribution of areas of significant indigenous vegetation has become fragmented such that the need for their protection is greater. The criteria for determining significance (Policy 1.8), are those that have been used by the Council, in surveying sites of significance through its 'Significant Natural Areas' programme in the Plan area. For consistency with that survey work, the same assessment criteria have been included in the Plan. The criteria are set out in more detail in Appendix C.

Some special ecosystems and species in the region are not protected at all. Others are not accorded an appropriate level of protection, or once protected, are not properly managed to protect or enhance their ecological values.

Areas are too small to be viable and others have been badly damaged by introduced plants or animals. In some cases reserve boundaries no longer encompass the location of the population of the species to be protected.

The protection and management of remnant ecosystems on private land can be difficult to implement, especially in agricultural areas. This is of particular concern in relation to indigenous forest, wetlands and shrublands.

There is concern that if we manage only protected areas, rather than the wider environment surrounding special ecosystems, the health of both the special ecosystems and the surrounding environment will be threatened. As many remnant indigenous ecosystems are small and dispersed, their viability, and the viability of species within them, is endangered. Inappropriate developments have been allowed to further fragment and isolate ecosystems.

A number of introduced plants and animals in the region are environmentally damaging. The main problems include Old Man's Beard (Clematis vitalba), hieracium, briar, pigs, deer, goats, rabbits, feral cats, rodents, mustelids, hedgehogs and possums. There are a range of responses in dealing with undesirable plants and animals. This includes through the Council's regional pest management strategy, national pest management strategies and at times direct funding to landowners to help protect significant sites from pests. There are also other statutes such as the Wild Animals Control Act that control the farming of animals that have the potential to become pests.

Policy 1.12 has been inserted into the Plan as a requirement of the National Policy Statement for Freshwater Management 2020.

4.2.3 Methods of Implementation

Rules	Rules will control vegetation and habitat disturbance. Rules will require ecological surveys and management plans in conjunction with resource consent applications in areas of significant indigenous vegetation and significant indigenous fauna habitat.
Education	Increasing landowners and the public's knowledge and understanding of the occurrence of significant areas of ecological value not only leads to greater appreciation of those values but also the protection of the indigenous flora and fauna. This increased understanding can motivate voluntary action to maintain and enhance indigenous flora and fauna. Voluntary action includes the use of private conservation covenants on property titles. The Council will promote, and provide information on the need to protect the ecology of wetland areas. With regard to areas of significant indigenous vegetation and significant habitat of indigenous fauna the Council will: • Provide information to landowners and the public to raise awareness of the importance of protecting areas of significance, through newsletters and state of the environment reporting. • Encourage landowners to share information with the Council and directly affected others where there are sites of significance on their property. • Provide information direct to landowners on the range of management options available to protect sites of significance. • Encourage the voluntary implementation of regimes such as voluntary retirement, QEII Trust and other covenants, the

	establishment of reserves and voluntary restoration to achieve the protection of areas of significance.
Pest Management	Maintain a regional pest management strategy with a focus on protecting indigenous vegetation, fauna, soil and water quality. Place conditions on resource consents where appropriate, to assist in containing/eradicating plant and animal pests.
Land Acquisition	The Council may consider acquiring sites with outstanding ecological values where land purchase is the only means available for protection of the values. The Council will also encourage other agencies to do this.
Research	The Council will undertake survey work in conjunction with other relevant agencies to identify ecological values requiring protection.
Financial Incentives	The Council will provide financial incentives to encourage the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. Incentives may include: • Waiver of resource consent application fees for activities with the potential to assist in the protection of significant areas; and/or • Waiver or reduction of development contributions where developments, including subdivisions, will achieve protection or rehabilitation of a significant area; and/ or • Providing funding assistance for protection and management of sites e.g. fencing and pest control; and/or • Through the annual planning process, consider granting reductions in rating for properties where sites are protected through conservation covenants; and/or • Funding made available from central government for the protection of areas of significant indigenous vegetation and habitats of indigenous fauna.

Rules can go some way towards protection of indigenous fauna and flora. Education will most likely have the greatest benefit over time.

4.3 Water Ecosystems

4.3.1 Issue

Rivers, streams, waterbodies, wetlands and their margins have many ecological values such as habitats, physical systems, recreational resources and amenity values, and use of water resources may affect these values.

Many different fauna and flora, both indigenous and exotic have their habitat in the water environment. Rivers form ecological corridors linking the sea and other parts of the land for fish, birds and plant life. Different parts of different rivers also provide specific habitat for particular flora and fauna. A summary of the values associated with freshwater resources can be found in Appendix A to this volume.

4.3.1.1 Water Abstraction

Water abstraction reduces the flow or levels in rivers and lakes which in turn affects the water flow or levels, instream habitat, instream and amenity values, depth, width, velocity and temperature or quality; especially at times of river low flows. Significant abstractions occur on the Waihopai (to Gibson's Creek), Omaka and Awatere rivers. A less obvious "abstraction" is the Wairau Diversion that takes a large proportion of Wairau River flows without any specific control structure.

4.3.1.2 Damming and Diversion

This completely alters habitat upstream of the dam and often alters the flow regime downstream. Fish passage can be detrimentally affected.

Significant damming has occurred on the Branch and Waihopai Rivers for hydro-electric purposes, on the Upper Opawa River to block off Wairau flows, and on the Opawa Loop to reduce Upper Opawa and Taylor flows into the loop, and the Taylor flood detention dam.

4.3.1.3 River Control Works

These can directly damage fauna or flora or alter the physical channel form and substrate, and thus the habitat provided. River control works on the Wairau have narrowed the normal channel width making it a deeper channel. This has been done by strong bank edge protection works in the form of rocks and trees which in themselves provide more cover for fish.

The extensive bank edge tree planting significantly changes the riparian habitat. Unmaintained willows or other vegetation can lead to choking of the river channel downstream.

4.3.1.4 Gravel Extraction

Gravel extraction will affect channel form and thus habitat provided and its operation can directly affect fish spawning or bird nesting areas. It may also discolour water downstream if carried out in flowing water.

4.3.1.5 Barriers

Floodgated culverts and drop structures block fish passage or create artificially high velocity that prevent or inhibit fish passage.

4.3.1.6 Unfenced Channels

Unfenced stock can directly affect fauna, flora or water quality.

4.3.1.7 Adjacent Land Uses

These can cause changes in sedimentation or water quality.

Appendix A lists ecological values and concerns attributable to the more important waterways.

The general lack of specific knowledge about the ecological values of the Plan area mean a precautionary approach should be taken to any use or development of the water resources. As a matter of principle cognisance should be taken of:

- Physical factors - depth of water, flow patterns, water quality, banks and margins, physical diversity and slopes.

- Vegetation factors - shading, shelter, nesting, spanning links, water quality, buffering and physical support.
- Animal factors - feeding, breeding, nesting/shelter, escape, migration and movement.

4.3.1.8 Discharges

Discharges can affect water and habitat quality as well as causing direct and indirect effects on flora and fauna.

4.3.2 Objectives and Policies

Objective 1	**The protection and enhancement of freshwater and riparian ecosystems.**
Policy 1.1	To provide for the protection and natural functioning of aquatic ecosystems by avoiding, remedying and mitigating the adverse effects of water abstraction from all rivers, including the setting of sustainable flow regimes for specified important rivers.
Policy 1.2	To set water quality standards which provide for the protection and natural functioning of aquatic ecosystems and to control point and manage diffuse source contamination to maintain water quality standards.
Policy 1.3	Maintain and enhance wetlands, lakes and rivers as natural corridors where water and riparian margins can act as links along which fauna can move and flora can spread.
Policy 1.4	The loss of river extent and values is avoided, unless the Council is satisfied: (a) that there is a functional need for the activity in that location; and (b) the effects of the activity are managed by applying the effects management hierarchy.
Policy 1.5	In the absence of detailed knowledge on the hydrology or ecology of rivers, lakes and wetlands in the plan area, adopt a precautionary approach when considering changes to freshwater ecology and instream values.
Policy 1.6	To recognise and provide for the protection of the habitats of indigenous fish and birds, and trout and salmon in wetlands, lakes and rivers.
Policy 1.7	Avoid, remedy or mitigate any adverse effects of river work activity.
Policy 1.8	Promote environmental enhancement of particularly valued river environments, especially on Council owned land.
Policy 1.9	Require all river works to be carried out in accordance with the 'Rivers Management Code of Practice' contained within the Council document 'Marlborough Rivers - Management and Ecology (1994)'.
Policy 1.10	Protect Class A riparian margins from any adverse effects from undesirable animal and plant intrusions. (Refer to Appendix J - Volume Two)

Policy 1.11	Aim for a reasonable proportion of the flows to be divided between the lower Wairau and Wairau Diversion.
Policy 1.12	Develop operational plans for rivers where the flow is controlled (or partially controlled) by control structures operated by the Council.
Policy 1.13	To avoid, remedy or mitigate the adverse effects of activities within river and lake beds to protect instream values, including fish passage and recreational values.
Policy 1.14	The passage of fish is maintained, or is improved, by instream structures, except where it is desirable to prevent the passage of some fish species the in order to protect desired fish species, their life stages, or their habitats.
Policy 1.15	To promote the use of water storage techniques to achieve the sustainable management of freshwater resources.
Policy 1.16	To avoid, remedy or mitigate the adverse effects of stormwater discharges and drainage activity on aquatic and riparian habitats and water quality.

Rivers, streams and waterways have many ecological values - as habitats, physical systems, recreational reserves and amenity values. Protection of the natural functioning of ecosystems is fundamental to the maintenance of these values. The policies recognise the importance of aquatic and riparian habitats and combine to form the basis of a policy strategy for the achievement of the objectives.

The ecological environment of the lower Wairau and habitat for fauna is affected by the flow regime of the river. At least half the volume of water in normal circumstances should be kept in the river.

Policies 1.4 and 1.14 have been inserted into the Plan as a requirement of the National Policy for Freshwater Management 2020.

4.3.3 Methods of Implementation

Rules	Rules will provide for the protection of habitats and species. Ecological assessments will be required in conjunction with proposals to modify riparian and aquatic environments. Class A Riparian margins (refer to Appendix J, Volume Two) will be protected from stock intrusion by set back requiring buffer strips. Minimum flows and water quality standards will be set for important rivers. Implement land disturbance rules to mitigate run off, sedimentation, woody detritus, deposition and prevent damage to riparian areas.
Information, Education and co-operation	New ways of collecting or sharing information will be investigated. Contractors will be advised of appropriate environmentally friendly methods and river management. Landowners will be encouraged to fence off river and stream margins.

	Landowners will be encouraged to implement appropriate conservation management measures on river and stream margins.
Code of Practice	Any body or person authorised to carry out river works shall adhere to the 'Rivers Management Code of Practice' contained within the Council document 'Marlborough Rivers - Management and Ecology (1994)' which will specify the manner in which river control works shall be carried out.
Land Acquisition	The Council will require esplanade reserves and strips in accordance with the requirements in relation to subdivision and development. (Refer to "Esplanade Reserves and Esplanade Strips" in Standard Requirements for Subdivision and Development, Volume Two). The Council may consider acquiring sites with outstanding ecological values particularly if the land has other values for Council activities. The Council will also encourage other appropriate agencies to do this.
Voluntary Action	The Council will encourage the attachment of conservation covenants on private property titles to protect riparian strips on rivers greater than 3 metres in width.
Council Activities	On suitable Council owned floodway land or river margins the Council will plant and maintain indigenous and other appropriate vegetation. Consult with other interested parties wishing to develop wetland and other areas on Council owned floodway land. Prepare reports on environmental enhancement options for the Spring Creek, Roses Overflow, Tuamarina, Opawa River, Opawa Loop, Taylor, Onamalutu, Renwick urban waterways and other river reaches. The Council will carry out gravel extraction and channel shaping works near the diversion of the Lower Wairau and Wairau Diversion with the target of keeping average and low flows in the Lower Wairau of 50% to 80% of the total Wairau flow, but flood flows at 45%. Operational plans will be developed in consultation with affected parties for Gibsons Creek, Grovetown Oxbow Lagoon and the Opawa Loop where the flow is predominantly controlled by Council operated gates. The Council will investigate the restriction of tidal flow to the Wairau Recreation Reserve estuary.
Monitoring	Surveys will be carried out to determine instream values for important rivers and how these values change with time or are affected by river control, adjacent land use, water abstraction or other factors. Flow monitoring will be carried out on major and representative rivers so as to link habitat requirements with actual flows.
Research	Undertake research into methods of avoiding, remedying, or mitigating the effects of present land use practices on certain water

	bodies especially spring fed creeks and still water bodies such as the Wairau Lagoons.
Investigation	The Council will complete investigations to determine the effects, including effects on instream flora and fauna, of the current apportionment of flow between the Wairau Diversion and the Lower Wairau as part of the process of reviewing that apportionment. This work will be undertaken in consultation with potentially affected parties including Nelson/Marlborough Fish and Game Council, Department of Conservation and iwi.
Liaison	The Council will liaise with the Nelson/Marlborough Fish and Game Council, Department of Conservation and the Nelson/Marlborough Eel Management Committee on its dredging programme on an annual basis in advance of the dredging being undertaken.
Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a Riparian Management Strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume One of the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

4.4 Anticipated Environmental Results

Implementation of the objectives, policies and methods relating to indigenous flora and fauna and their habitats will result in:

- Sustainable habitats that enable maintenance or enhancement of population numbers and distribution of rare and endangered species;
- Maintenance or enhancement of the integrity and natural species diversity of land and water communities, habitats and ecosystems;
- Good stocks of native fish, trout, salmon and other aquatic life in fresh surface waters normally inhabited by these species;
- Attractive aesthetic environment of wetlands, lakes and rivers; and
- Adequate flows and water levels in wetlands, lakes and rivers including both the Lower Wairau and Wairau Diversion to maintain or enhance existing ecological conditions.

5.0 Landscape

5.1 Introduction

The Wairau/Awatere area is made up of many different landscapes. It is the diversity of Marlborough's indigenous, working and built landscapes that give it and its inhabitants their identity.

The indigenous landscape is composed of the unmodified alpine and mountain grasslands, native forests in the north and western ranges, and unaltered beaches and bays. Other areas include those dominated by indigenous vegetation, such as oversown tussock grasslands, native trees and shrub species, and coastal plant associations.

The working landscape is composed of the dynamic rural landscape utilised for primary production, including both land and water based activities. It is predominantly composed of introduced species such as pine forests, pasture grasses, vineyards, arable and horticultural crops, mussels and salmon. The working landscape includes structures and associated activities involved in creating economic benefits from the use of land and water. Fences, tracks, sheds, rafts, and other structures all form part of the character of the working landscape.

The built landscape includes towns and settlements ranging from Blenheim, the major town, to small communities such as Rarangi. These landscapes are dominated by buildings, roads, and utilities such as telecommunication facilities, power and street lighting reticulation.

The boundaries between these landscapes are not absolute and consequently there is overlap between them when managing landscape at the regional level. In addition, the dynamic landscapes and seascapes of the coastal environment are important components of natural character and amenity values.

Landscapes and seascapes are the visual expression of physical, biological and cultural processes both past and present. The landscape is dynamic. Buildings, tree planting, land use activities and roading can all change the character of an area, be it the aesthetic or cultural value or the intrinsic value it provides for much social, recreation and economic value.

Section 6(b) of the Resource Management Act 1991 (the Act) requires that provision be made in this Plan for

"the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development."

The Marlborough Regional Policy Statement develops this further in Policy 8.1.3

"avoid, remedy or mitigate the damage of identified outstanding landscape features arising from the effects of excavation, disturbance of vegetation, or erection of structures."

Just as important is the need to encourage appropriate development within the working landscape.

5.2 Resources and Values

At a coarse level the Plan area is made up of the bush clad mountains, hills and valleys of the Richmond Range, the large river valleys of the Wairau and Awatere, the high

inland hill ranges, the dry eastern hills, the high country plateau of Molesworth, glaciated mountains of the St Arnaud and Raglan Ranges, the high rugged Inland Kaikoura Mountains and the coast.

Within this coarse level it is necessary to identify smaller units with which to work. The following table provides a breakdown of the study area placing an emphasis on the core characteristics of each area rather than defining the precise boundary between each.

Summary of Landscape Characteristics and Values of the Wairau/Awatere

Landscape Type	Places Landscape Character Areas	Features	Visual Quality	Outstanding	Landscape Sensitivity
Bush clad mountains and forested hills	Lake Chalice		Very High	Yes	High
	Richmond Range		High		High
	Eastern hills & valleys (Onamalutu, Kaituna, Tuamarina)		Medium		Low
		Onamalutu Scenic Reserve	High		High
		Tuamarina River	Medium High		Medium
		Para Swamp	Medium Low		High
Ultramaphic grasslands and shrublands	Red Hills Ridge		High		High
Glaciated mountain ranges	St Arnaud Range Rainbow/Wairau Valley	Rainbow skifield and road	High		High
High country plateau	Molesworth		High	Yes	High
		Sedgemere	Very High	Yes	High
		Lake McRae	Very High	Yes	High
High rugged mountain range	Inland Kaikouras	Tapuae-o-Uenuku	High	Yes	High
High inland hills	Upper Waihopai, Awatere, Medway, and Waima		Medium High		Medium Low
		River Gorges	High		Medium
Large river valley	Tophouse Locality	Six Mile Reserve	High		High
	Upper Wairau Valley		Medium		Medium
	Mid Wairau Valley		Medium Low		Low
	Wairau Plain		Medium		Low
		Intensive horticultural landscape			
		Wairau River	Medium High		Medium High
		Spring Creek	Medium		Medium
	Tributary river valleys (Waihopai, Taylor, Omaka)		Medium		Low
	Lower Awatere Valley		Medium		Low
		Seddon rail/road bridge	Medium		Low

Summary of Landscape Characteristics and Values of the Wairau/Awatere					
Landscape Type	**Places Landscape Character Areas**	**Features**	**Visual Quality**	**Outstanding**	**Landscape Sensitivity**
Dry hills	Wither Hills		Medium		Low
		Lake Elterwater	Medium High		Low
		The Passes (Dashwood, Redwood, Taylor)	Medium		Medium
The coast	Cloudy Bay		Medium		High
		Boulder Bank and Wairau Lagoons	Medium High	Yes	High
		White Bluffs	Medium		High
	Clifford Bay		Medium		Medium
		Awatere River Mouth	Medium		High
		Muritai Reserve	Medium		Medium
		Lake Grassmere	Medium		Low
		Marfells Beach	Medium		Medium
		Cape Campbell	Medium		High
	Cape Campbell to Waima Coast		High	Yes	High
		Chancet Rocks	High	Yes	High
		Ward Beach	High	Yes	High
		Needles Point	High	Yes	High
		Waima Mouth	Medium		High
	Waima to Willawa		Medium High		Medium

5.3 Issue

Degradation of natural features and landscapes which have special characteristics.

Significant Regional Features

Within the Wairau/Awatere Plan area, four natural features/landscapes have been identified as outstanding in a regional context:

(a) Lake Chalice (A predominantly indigenous natural feature)

An attractive small mountain lake at the head of the Goulter River surrounded by steep bush clad slopes. Some forestry on the skyline to the south. Access is by foot. Chalice Hut is located nearby.

Values

Expressive of its formation and one of the few natural lakes in the Wairau catchment. It is very attractive - its blue water contrasts with the deep greens of the surrounding beech forest. The lake provides a habitat for both a landlocked galaxids population and koaro. Rare wildlife are found in adjacent areas. Introduction of built elements will contrast strongly unless very carefully sited and designed.

Sensitivity

High due to naturalness and high aesthetic quality. The lake is within Mount Richmond Forest Park.

(b) Molesworth, Sedgemere, Lake McRae

At the head of the Awatere Valley the landscape of Molesworth is highly legible with a well documented natural and cultural history. It is mostly 1000 m or more above sea level and has an alpine climate. Within Molesworth there are a number of places of landscape significance with exceptional historical, cultural, biological and geological values. These are identified in the Molesworth Management Plan. Of particular aesthetic merit are the lakes and wetlands eg. Sedgemere and Lake McRae. The landscape experienced from the road through the station is also of major significance.

The characteristics and qualities of the station are not uniform, however for the purpose of this Plan the whole station is treated as an entity. This is a predominantly indigenous landscape despite the extensive modification to vegetation that has occurred.

The entire area is of exceptional landscape quality and variety, with its huge scale, barren wind-swept appearance, low rolling hills, many creeks and rivers, tussock vegetation cover, dramatic rock outcrops and rugged scree-sided mountains. Public vehicle access is restricted to the Hanmer to Wairau Valley track much of which is beyond the District boundary to the west, and the Molesworth road which follows the Acheron River through the centre of the station and is open to the public for a restricted period between December and February. There are a wide range of recreation pursuits carried out in the area and the landscape context is important to the enjoyment of many visitors.

Inevitably there is potential to visually absorb sensitively sited development in such a varied landscape however the lack of tall vegetation and the spaciousness of many areas mean that in general the visual absorption capability is low.

Sensitivity

Landscape sensitivity is high due to the areas' ecological fragility, the scale and visual simplicity of large parts of the station, and its high cultural profile.

(c) Boulder Bank and Wairau (Vernon) Lagoons (A predominantly indigenous landscape)

This is a very special area with rich historical associations for both Maori and Pakeha. The boulder bank is a shingle spit extending for approximately 7 kilometres, backed by shallow lagoons and wetlands. The water passes through the boulder bank between the wetlands and the sea. All these areas are included in the coastal environment. The inland boundary to the coastal environment is close to the Redwood Pass Road more that 4 kilometres from the boulder bank. Even this far inland there is a strong visual connection to Cloudy Bay and the coastal headlands. The area is biologically very rich and has a predominantly natural character.

The formation of the bank and lagoons is highly legible and the area has very high cultural and historical significance. There are recorded geological sites (geopreservation inventory) and the biological values of the area are exceptional.

Sensitivity

The aesthetic qualities of this landscape are of lesser significance although many will find the simplicity and wild qualities of the area to be very beautiful. The ability of this landscape to absorb change is very low. Landscape sensitivity is very high. The area immediately inland is administered by the Department of Conservation.

(d) The High Rugged Mountains of the Inland Kaikoura Range

North east of Molesworth and south of the Awatere Valley there is a small area of the north western slopes of the Inland Kaikouras within the district.

The district boundary follows the ridgeline and includes the northern face of Tapuae-o-Uenuku - the highest point at 2885 m above sea level. This dramatic rugged mountain country is a very significant natural feature when seen towering above the hills and valleys forming the district to the north. This is particularly significant when Tapuae-o-Uenuku is snow-covered, contrasting strongly with the dull browns and greens of the lower country.

The range is very exposed. It is of recent geological formation and is exposed to extreme climatic conditions and as such is of biological and geological interest. Tapuae-o-Uenuku in particular is of very special significance to the Tangata Whenua and is an icon for many climbers and trampers.

Visual absorption capability is barely an issue because of the distance from which the mountains are generally seen. The mountains' exposure and restricted access suggest that future pressures are likely to be few.

Significant District Features

At a more local level the following natural features and landscapes are considered to be outstanding:

Red Hills Ridge -	Geologically unusual mountain range - bleak, barren, stark and exposed.
Onamalutu Scenic Reserve -	Remnant bush. Major concern is the protection of natural processes and natural character.
Para Swamp -	Impressive swamp. Of major concern is the protection of natural processes and natural character and the need to avoid invasion by exotic species.
Wairau River -	Although partly modified the river remains a significantly important multi-recreational landscape.
Spring Creek -	Although modified the river remains a picturesque and tranquil feature.

The Coast from Cape Campbell south to the Waima (Ure) River - a predominantly indigenous landscape, the least modified coastal environment on the East Marlborough Coast. The coastal landscape is highly expressive of its geological formation. The diversity in coastal conditions results in a rich marine life and a very interesting and attractive stretch of coast. Cape Campbell, Chancet Rocks, Ward Beach and Needles Point are all special places on this coast. The broken topography suggests that the areas absorption capability may be moderately high in places. This will not be the case with the headlands.

This landscape is outstanding and consequently highly sensitive to change. However access is very restricted and well sited development within the coastal environment may avoid adverse effects. The environment is unlikely to be under substantial pressure for development due to its relative isolation and difficulty of access.

5.4 Objectives and Policies

Objective 1	**Management of the visual quality of the Wairau/Awatere plan area and protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.**
Policy 1.1	Recognise and provide for the following natural features and landscapes as outstanding in the regional context: • Lake Chalice; • Molesworth; • Tapuae-o-Uenuku and associated peaks of the Inland Kaikouras; • Boulder Bank and Wairau Lagoons; • Isolated Hill Scenic Reserve and associated Waima River reaches; and • Richmond Range.
Policy 1.2	Recognise the following natural features and landscapes as outstanding in a more localised context: • Red Hills Ridge; • Onamalutu Scenic Reserve; • Para Swamp; • Wairau River; • Spring Creek; • The coast from Cape Campbell south to Waima including Chancet Rocks, Ward Beach and Needles Point; • The Rainbow and Upper Wairau Valleys including the Wairau Gorge; • White Bluffs; • Cliffs and gorge of the Awatere River; and • Lake Alexander.
Policy 1.3	Ensure that structures built on land do not compromise outstanding landscape values.
Policy 1.4	Ensure that structures associated with activities in the coastal marine area do not compromise the outstanding landscape values of the Plan area.
Policy 1.5	Ensure that any significant long-term effects on the landscape of land disturbance, earthworks and cultivation are avoided, remedied or mitigated.

Policy 1.6	Within identified areas of outstanding landscape value, ensure that any land disturbance, earthworks or cultivation undertaken incorporates measures to avoid, remedy or mitigate any short-term adverse effects.
Policy 1.7	Require activities involving tree removal and vegetation clearance to incorporate measures to avoid, remedy or mitigate any adverse visual landscape effects.
Policy 1.8	Encourage plantations of exotic trees, established in areas of outstanding or other important landscape value, to be planted in a form which complements the natural landform and surrounding landscape features.
Policy 1.9	Avoid sprawling or sporadic subdivisions for residential activity outside areas already occupied by residential settlement, or incursion into landscape sensitive areas.
Policy 1.10	Retain significant areas or stands of indigenous vegetation where they contribute to landscape character and quality.

The objective, and the policies to achieve landscape protection, are included in the Plan primarily because the Act and the New Zealand Coastal Policy Statement require, as a matter of national importance, the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.

The Marlborough Regional Policy Statement also indicates the need for this Plan to address the protection of visual or landscape values.

The objective and policies are intended to apply specifically to those areas identified as having outstanding landscape value (refer to Volume Three - Maps). However, the policies also apply in general to all other areas, particularly when an application for a moderate or large-scale activity is being assessed. That is, when some type of visual or landscape assessment is necessary in order to ensure that any adverse visual effects are avoided, remedied or mitigated.

5.5 Issue

General Degradation of and Detraction from the Landscape and Visual Amenity Values of the District

The vast bulk of the district is made up of very pleasant hills, valleys and plains landscape. Different areas have different characteristics. In the wilder country this reflects underlying natural processes - for example different vegetation patterns on north and south facing slopes, or greener areas in gullies and where moisture lies. Even in highly modified areas there may be indicators of what lies beneath still evident to the observant. The significance of these characteristics may not be sufficient (as it will be in the special places and outstanding landscapes), to suggest that development must take account of them, but they should be seen as potential qualities that can be used to create a vibrant and diverse environment.

Section 7 of the Act requires that management decisions have particular regard to the maintenance and enhancement of amenity values. These values relate to both natural features and landscapes, and cultural features and landscapes. It is often the cultural landscapes that are most familiar and important to many people. They live out their lives in these areas. Consequently they are valuable both in the diversity they bring to

an area but also individually as places that have meaning to those that live, work and visit them.

In areas where rural subdivision occurs care should be taken to develop in a way that retains the essential rural characteristics. The location of dwellings should reflect the landform and this may require retention of any natural features such as meandering streams or trees. Where feasible these characteristics should be maintained and enhanced. The planting of trees in the valleys and out on the alluvial plains is very important. Inappropriate 'urban' development will be resisted vigorously.

Land use activities involving vegetation clearance, excavation, filling and changes in land use from, for example pasture to forestry or vice versa, result in inevitable alteration to the landscape. If an area is considered to be suitable for such activities on landscape criteria (ie; land outside the outstanding and special places or where the activity would not compromise the outstanding qualities of these special places) and would not compromise physical or biological values, then these activities are likely to be acceptable. Such development should follow industry guidelines and other studies. Where possible, earthworks, subdivision boundaries, fencelines and land use changes, should reflect natural land form. Excavation and vegetation clearance, or changes in land use that may result in these activities in the future, are of particular significance as these may result in accelerated erosion and visual scarring. Property boundaries often follow ridges and in these circumstances, visually prominent features such as trees and buildings, should be kept down from the ridge top if breaking the skyline would mean that these features would be visible from settlements or public roads beyond. In tussock country, changes in land use, such as forestry, can have significant effect on the spacious, open vistas. However, it is possible to minimise impact if care is taken over siting and layout. Care should be taken to provide a visual as well as biological buffer between various land use activities and wetlands or other sensitive habitats.

The townships in the Wairau/Awatere District retain their rural nature. They are spacious, with wide roads, predominantly single storey buildings, frequent open spaces, numerous trees and strong visual connections to their surroundings. Each settlement also has its own particular 'sense of place' - its own history, its own unique landform and microclimates, and its own use patterns. Local communities can be encouraged to reinforce the special aspects of their settlement through an understanding of both the underlying natural landscape and the settlement's unique historical and cultural features.

The East Marlborough Coast has a relatively low profile compared with the Marlborough Sounds. Nonetheless, it is largely natural, enjoys considerable diversity and there are a number of very special locations, including headlands, lengths of unspoilt coast, and areas of dramatic rock outcrops. In relation to coastal development, siting should be considered in terms of the character and use of adjacent areas and landscape values.

Landscape and amenity values should be a major consideration in any decision to develop the coastal foreshore.

The rivers of the Wairau/Awatere District are other very significant features. The presence of natural water and vegetation is an attraction and the rivers are a focus for recreation. The scenic qualities of these areas are very important and provide opportunities for combining flood management practices with recreational, ecological, heritage and landscape objectives. This is the case in both rural and urban locations.

Objective 2	To provide for appropriate development practices within areas not identified as outstanding natural landscapes.
Policy 2.1	Encourage the development of landscape identity areas such as the Wairau Plains, the rurality of small towns.
Policy 2.2	In areas where rural subdivision occurs retain rural features and characteristics (eg. meandering streams, indigenous vegetation patterns, trees).
Policy 2.3	Maintain an open character to the rural zones and in particular the more intensively developed Rural 3 Zone.
Policy 2.4	Encourage rural residential settlement in areas outside of the Rural 3 Zone provided they are contained, retain rural character and do not lead to "suburbanisation" of the rural environment, and do not adversely affect physical resources.
Policy 2.5	Encourage forestry development to reflect natural landforms.
Policy 2.6	Recognise the value of rivers as significant landscape features providing opportunities for access into the landscape as well as providing opportunities to maximise aesthetic and intrinsic values.
Policy 2.7	Ensure consideration of landscape and amenity values in relation to coastal development.

Several major landscape divisions in the Wairau/Awatere landscape can be identified. The bush clad mountains and forested hills north of the Wairau Valley, the glaciated mountain ranges and valleys in the west, the rugged Inland Kaikouras, Molesworth, the high inland hills, the lower dry coastal hills, the Wairau and Awatere valleys and the coast, all have their own characteristics and qualities.

Within these landscapes many special 'places', or landscape character areas exist. These areas are sensitive to development but do not have the same values as the outstanding landscapes. In these landscapes change may be appropriate, but landscape issues will need to be carefully considered. The way that the change is handled will be critical. Special places are the Richmond Hills, Tuamarina River, Rainbow Valley and the Upper Wairau, the Tophouse area, Wither Hills, Dashwood, Redwood and Taylor Passes, Wairau Mouth, White Bluffs, Muritai Reserve, Marfells Beach and Waima Mouth.

Elsewhere in the Wairau/Awatere the landscape is less sensitive to change. For both residents and visitors these modified landscapes contribute significantly to the identity of Marlborough. The best known examples are the vineyard landscapes of the Wairau and Awatere Valleys.

The Plan assists in the protection of outstanding and special landscapes - usually those retaining a high level of natural character - and reinforces and enhances the characteristics and qualities of the diverse working and built landscapes of the district.

5.6 Methods of Implementation

Area Identification	Landscape and features of outstanding landscape value are identified on the planning maps.

Rules	Landscape values underpin the construction of rules, in particular subdivision rules, and the zoning pattern adopted for the Plan.
Assessment Criteria	Landscape impact has been included as a matter for assessment on a number of Discretionary Activities where visual or landscape effects are likely. Such assessments will be required to take into account the values identified and shown on the planning maps.
Guidelines	The Council will develop landscape guidelines in consultation with major land user groups in accordance with policies outlined in this chapter. Such guidelines will provide subdividers, land users and building applicants with information on suitable siting, design and appearance of buildings and structures.
Education	The Council will provide landowners in areas identified as being of outstanding landscape importance with information on the values attributed to their land.
Voluntary Action	The Council will encourage the use of voluntary conservation covenants or other agreements as a means of protecting an area of landscape value.
Subdivision	The Council will impose conditions of consent for subdivision, where appropriate, requiring landscape covenants be registered on the land title or the vesting of certain land as reserve in order to protect landscape values.
Land Acquisition	The Council may consider acquiring a site with outstanding landscape values where land purchase is the only means available for protection of the values.

The methods provide a general framework for the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development. It is important to note that it is not outright protection which is sought by the objective, policies and methods above, but rather protection from inappropriate subdivision, use or development.

There are numerous means available to moderate landscape impact. For example, a structure on land, such as a residential dwelling or a transmission mast can have a lesser visual effect if it is appropriately located on the site, the shape and size is moderate and reflects the surrounds, and the external finish is non-reflective and incorporates neutral colours.

5.7 Anticipated Environmental Results

Implementation of the policies and methods relating to landscape will result in:

- Maintenance of the outstanding landscapes and natural features of the District;
- A reduction in the conflict between developments and the landscape;
- Development located in a manner, style and character which is sympathetic and complementary to the landscape;

- Protection of the visual and landscape resources and values of the rivers, wetlands and lakes, and the coastal environment ; and
- Improved public awareness and acceptance of the fundamental importance and value of the landscape to the wellbeing of the District.

6.0 Fresh Water

6.1 Introduction

Fresh water includes groundwater and surface water resources. Groundwater is water located under ground, generally in aquifers. Surface water refers to water that flows above ground, and includes rivers, streams, spring fed flows, lakes, wetlands and even artificial resources such as drainage canals and diversions.

The fresh water resources of the Wairau/Awatere plan area are among the region's most important natural assets. The significant groundwater resources of the Wairau aquifers supply drinking water and water for irrigation and industrial use. The Wairau River and its tributaries are the key surface water resource in the area, providing important ecological, recreational, cultural, amenity and commercial values and are the principal source for recharging the Wairau groundwater systems. Appendix A provides a summary of the key surface and groundwater resources of the area, identifying significant values, threats to those values and determining a ranking for each resource.

Maintaining fresh water quality and quantity at levels required to meet ecological, cultural, recreational, social and economic needs is essential for community wellbeing. However, while providing for community wellbeing the Council has a duty to safeguard the life supporting capacity of fresh water, and to avoid, remedy or mitigate any adverse effects of activities on fresh water. Another key responsibility of the Council under the Act is to maintain and enhance water quality. This section sets out the issues, objectives, policies and methods which will enable these duties and community wellbeing to be met.

6.2 Issue

Use of freshwater resources may compromise the life supporting capacity of the resource.

Use of fresh water can adversely affect the life supporting capacity of the resource, through altering the course, quality or quantity of the resource. Uses of fresh water include consumptive and non-consumptive uses and use of the water as a receiving environment for the direct (or point source) discharge of contaminants. Some of the more significant activities which involve the point source discharge of contaminants to water include sewage, processing waste and stormwater. Consumptive uses include activities which both take and consume water, such as crop irrigation, town water supply, domestic and stock water, fire-fighting or industrial processing. Non-consumptive uses include activities that use but do not consume the water, such as fishing, boating, swimming, amenity values, commercial fisheries, hydro generation of electricity and natural habitats. These uses are important to provide for the social, economic and cultural wellbeing of the community.

Indirect discharges from non-point sources, such as contaminated run-off and sedimentation also have the potential to adversely affect water quality. Riparian vegetation and effective riparian management contribute to maintaining and enhancing water quality and the quality of aquatic habitats.

However, these uses have the potential to adversely affect the life supporting capacity of the resource. Consumptive uses can reduce water levels and flows which can have significant effects on the integrity of habitats, and on recreational and amenity values.

Uncontrolled abstractions from groundwater resources could lead to aquifer compaction, salt water intrusion, or a reduction or cessation of spring flows. The direct discharge of contaminants to water, particularly from point sources (such as pipes or drains) can adversely affect water quality. Effects can include increased temperatures, altered pH, increased nutrient and bacteria loads, changes in the colour, and clarity of the water and an increase in the existence of biological growths. Degraded water quality can also adversely affect other users by preventing the safe use of water for drinking or contact recreation. Given the recharge value of the Wairau River it is particularly important that surface water quality is managed to maintain groundwater quality.

It is important that the fresh water resources of the plan area are managed in such a way that existing user demands on the resource can continue to be met without adversely affecting other users or the life supporting capacity of the resource.

6.2.1 Objectives and Policies

Objective 1	**To provide for the taking, use, damming and diversion of fresh water in a manner which safeguards the life supporting capacity of the resource and avoids, remedies or mitigates any adverse effects on the environment.**
Policy 1.1	To maintain surface water flows at levels which safeguard the life supporting capacity of the resource by setting and enforcing Sustainable Flow Regimes (SFRs) in terms of specified river flows.
Policy 1.2	To maintain groundwater levels and flows at levels which safeguard the life supporting capacity of the resource by setting and enforcing Sustainable Flow Regimes (SFRs) in m^3/year.
Policy 1.3	To establish groundwater SFRs to: • Prevent damage to the physical structure of the aquifer such as compaction in the Southern Valleys Water Management Zone; • Prevent reductions in the quality of spring flows eg: Spring Creek from the Wairau Aquifer; • Prevent a landward shift of the seawater/freshwater interface, eg: Rarangi Shallow Aquifer; • Protect the instream habitat and ecology; and • Provide for maintenance or enhancement of water quality.
Policy 1.4	To determine SFRs on the basis of monitoring information. New SFRs and amendments to SFRs will be determined in consultation with representatives from Iwi, Department of Conservation, Fish and Game Council and water users. Amendments to existing SFRs would be achieved through a change to the Plan.
Policy 1.5	To set the SFR for fresh surface waters to: • Protect instream habitat and ecology; • Improve fish passage and spawning grounds; • Protect the natural character of freshwater resources; • Maintain water quality;

- Protect cultural values;
- Maintain amenity values; and
- Provide for aquifer recharge.

Policy 1.6	To set aside a proportion of the abstraction flow, where appropriate, as additional flow for instream values, over and above the SFR.
Policy 1.7	To set the SFR for fresh groundwater resources to: • Prevent damage to the physical structure of the aquifer such as compaction, in particular those areas such as the Southern Valleys Management Zone; • Prevent reductions in the quantity of spring flows, eg. Spring Creek from the Wairau Aquifer; • Prevent a landward shift of the seawater/freshwater interface; • Protect the instream ecology; and • Provide for maintenance or enhancement of water quality.
Policy 1.8	The conditions on all consents to abstract water which were issued prior to this Plan becoming operative may be reviewed under Section 128 (1)(b) of the Act and may be amended to bring the consents into line relative to the SFR's set out in Volume Two.
Policy 1.9	To protect the important values of specified surface water bodies by classifying the damming of these water bodies as a Non-Complying or Prohibited Activity.

The setting of an SFR for the reach of a river is a complex task. The suitability of an environmental habitat is affected by the amount of flow, but is also affected by biological suitability, suspended sediment, water temperature, river bed material and riparian vegetation. SFR's have been set for only those rivers of significant potential abstraction. Even for these rivers further study of all factors is required and programmed to be undertaken in the future. Depending on the results, the SFR's may be amended as a Plan change.

It is not possible to continually monitor flows along the entire length of a surface water body. For this reason, trigger levels are applied where recorder sites have been established, usually in the upper catchment of the surface water body. The intent of the trigger levels is to achieve the SFR and a corresponding flow relative to the SFR for the remainder of the surface water body.

Some water bodies have special values that could be significantly adversely affected by the damming of the water bodies. For this reason, more onerous rules apply.

Objective 2	**To maintain, and where appropriate enhance, existing freshwater quality.**
Policy 2.1	To apply water classifications to all surface water and groundwater resources which reflect the existing values of each freshwater resource and provides for maintenance and enhancement of existing water quality as appropriate (as outlined in Appendix J, Volume Two).
Policy 2.2	To require compliance with the water classification standards, after reasonable mixing, for all new point source discharges to surface water, except where a discharge meets the criteria of exceptional circumstances specified in Section 107 (2) of the Act.
Policy 2.3	To renew existing discharge permits only where the discharge complies with the water classification standards, after reasonable mixing as defined by the mixing zone, or, where in the case of non-compliance the consent holder can demonstrate a reduction in the amount and concentration of contaminants and a commitment to a staged approach for achieving the water classification standard within a period of not longer than 15 years from the date the consent is granted.
Policy 2.4	To encourage the discharge of contaminants to land rather than water where the land is suited to accommodating the discharge i.e. the areas of confined Wairau Aquifer (as shown on Map 216, Volume Three).
Policy 2.5	To investigate the relative effects of point and non-point source discharges on water quality, and to develop and impose additional controls which more equitably address the relative contributions of contaminants from these activities where required.
Policy 2.6	To establish a surface water quality monitoring network which provides baseline information on existing water quality and enables compliance with the water classifications to be measured.
Policy 2.7	To require permit holders, as a condition of a discharge permit, to monitor the effects of their discharge on water quality to determine compliance with the parameters specified for the water classification.
Policy 2.8	Within 24 months of the Plan becoming operative the Council may call in existing discharge permits for those resources where water quality requires enhancement, to impose a condition requiring the monitoring of their discharge effects to determine compliance with the new water classification standard/s.

Use of the water classification system identified in Policy 2.1 is an effective way of managing water quality that enables the maintenance or enhancement of water quality as appropriate. The underlying classifications of Class F for surface water and Class DW for groundwater are consistent with the objectives proposed in the Marlborough Regional Policy Statement. Applying additional water classifications over and above the underlying classifications for particular resources or parts of a resource will enable specific management to protect local values. This is important because the underlying classifications of F and DW have standards that relate only to the protection of the fishery or drinking water aspects of the resource. Other values such as amenity, fish spawning or contact recreation can only be maintained or

enhanced through the use of specific classifications designed to protect those values. Compliance with these water classification standards will ensure that all the values of the resource are protected. The narrative and alphanumeric standards used to implement the water classifications are given in Appendix J, Volume Two.

The Marlborough Regional Policy Statement seeks for the maintenance and enhancement of water quality where it is currently degraded. Policies 2.2 through to 2.4 seek to reduce the existing impact of point source discharges by encouraging improvements in the quality of the discharge, alternative methods of disposal to avoid, remedy or mitigate adverse effects, and the calling in of existing discharge permits within a 24 month period to achieve a resource management regime which deals with new and existing dischargers in an equitable manner. This is particularly important if resource management is to be equitable. The Council recognises the need to require any improvements to a discharge, that may be required of existing dischargers, to be achieved over a reasonable period of time in a manner that does not impose unreasonable economic constraints yet still achieves a continuous improvement in discharge quality.

Defining the reasonable mixing zone for surface water resources is crucial to the efficient and equitable implementation of the water classification management system. Rather than allowing the mixing zone to be determined on a case by case basis the Council will require all mixing zones to meet the prescribed formula to ensure a consistent and equitable approach. The use of a consistent approach for mixing zone definition will also provide greater certainty for plan users.

The lack of comprehensive baseline data for existing surface water quality creates problems for the Council in understanding the actual relative effect of point and non point discharges. Policies 2.5 and 2.6 are designed to address this information gap such that full information will be available in the future which enables use of the most equitable and effective methods to manage the quality of fresh water resources.

Policy 2.7 recognises the importance of self-monitoring in achieving sustainable management of the fresh water resource. Self-monitoring has the dual benefit of educating water users about the effects of their activities and providing additional water quality information that is specific to particular activities. Policy 2.8 recognises the need to treat new and existing discharges equitably.

Objective 3	**To protect and enhance the Mauri of fresh water resources which have very high or high value to iwi.**
Policy 3.1	Consents relating to taking, use, damming or diversion of fresh water classified as high value to iwi will be processed in consultation with iwi.
Policy 3.2	The Council will monitor fresh water resources of cultural importance to iwi.

Protecting the Mauri of fresh water resources will enable the Council to meet its duties under Sections 6, 7 and 8 of the Act.

All water resources identified as being of high value to iwi, will be subject to consultation with iwi.

6.3 Issue

Competing and increasing demands for fresh water resources may lead to inequitable allocation.

With the increases in demand there is potential for increased conflict between different users (eg. between small and large users, industrial and recreational users, and cultural and commercial users) and increased competition for the total resource available. With increased numbers of users there is also potential for abstraction to adversely affect other users.

Adopting objectives and policies which seek to manage the competing and increasing demands for water in a fair and equitable manner will enable the Council to achieve the main purpose incorporated within the Marlborough Regional Policy Statement, which is to "integrate the management of natural and physical resources and provide for the fair and equitable treatment of different activities which may be competing for or affecting resources".

Consent volumes will be allocated on the basis of water allocation guidelines which have been determined for a number of activities by the Council and are listed in the table below:

Crop	Use Allocation Volume (m^3/ha/week)	Application Rate (mm/day over irrigated area)
Crops/potatoes*	400	5.7
Food Crops (eg peas)*	400	5.7
Pasture	350	5.0
Pipfruit/stonefruit (eg apples)	375	5.4
Field crops (eg wheat) *	350	5.0
Deep rooting tree crops (eg olives) *	200	2.9
Grapes**	155	2.2
Domestic	10 m^3/house/day	-
Rural residential allotment	10 m^3/site/day	-

* *Guideline indicates water required 80% of the time, from 1974 to 1996, to keep the soil moisture store full, using recorded evaporation (factored to represent crop evapotranspiration), and recorded rainfall. The relationship between water requirements and crop yields for the Marlborough district has not been optimised.*

** *Guidelines indicate water required, from 1974 to 1996, to provide optimum crop yields for the Marlborough district (based on yield information from the region), using recorded crop evapotranspiration and assuming there is no rainfall. An irrigation application rate of 2.2 mm is equivalent to 12 litres per vine per day based on standard planting density.*

Water permit volumes granted will be clearly stated in the permit conditions and may also include the maximum rate at which water can be extracted. Water volumes will be expressed on permits in one or more of the ways shown in the table below.

Rate Surface	Water Resources	Groundwater Resources
Instantaneous rate (l/s) (normally)	✓	Not necessary unless very limited system
Maximum daily rate (m^3/day)	✓	✓
Maximum weekly rate (m^3/week)	✓	✓

6.3.1 Objectives and Policies

Objective 1	**To achieve equitable allocation and use of surface water and groundwater resources.**
Policy 1.1	To provide for the taking, use, damming and diversion of water with only minor adverse effects on freshwater resources as Permitted Activities.
Policy 1.2	To establish and apply a triple class permit system for the taking of water and to set and enforce maximum allocations for each class.
Policy 1.3	To issue water permits to take and use water for a period of 10 years where water resources are either fully allocated or over-allocated relative to the allocation limits set in this Plan or where water is to be taken from a resource for which no SFR has been established in the Plan. To issue discharge permits for a maximum period of 15 years for resources where the existing water quality is to be maintained and to issue discharge permits for a maximum period of 10 years in resources where the existing water quality requires enhancement.
Policy 1.4	To set water permit volumes, initially and at either review or renewal, on the basis of water allocation guidelines or actual use as indicated by water meter readings.
Policy 1.5	To use enforcement provisions of the Act where consent conditions are breached.
Policy 1.6	To cancel water and discharge permits, subject to Sections 357 and 358 of the Act, where a resource consent has been exercised, but is not exercised for a continuous period of two years, and where reasonable justification for the lapse in use cannot be given.
Policy 1.7	To ensure that new bores, intakes and dams are located and operated to avoid, remedy or mitigate interference effects on other water users.
Policy 1.8	To require water metering by an accepted method as a condition of all water permits involving the taking and use of water.
Policy 1.9	To review existing water permits for priority areas within 24 months of the Plan becoming operative, to impose a new condition on those permits requiring water metering and where necessary bring allocation into line with crop guidelines.
Policy 1.10	To provide for an individual's reasonable domestic needs, the reasonable needs of an individual's animals for drinking water and for firefighting purposes as a priority over other users where there is no adverse effect on the environment.
Policy 1.11	To ensure cross boundary issues in relation to a particular resource system are dealt with in a consistent manner.

Policy 1.12	In the 5 years following the operative date of this plan the Council will undertake resource reviews on the Southern Valley Management Zone, Awatere River and Waihopai River.
Policy 1.13	In the 10 years following the operative date of this plan resource reviews will be carried out on the Wairau River, Wairau Aquifers and fresh water resources.
Policy 1.14	Following completion of the investigations required as conditions of the resource consent for the operation of the Branch River hydro electric scheme (Marlborough District Council file U990161), and the completion of any other investigations undertaken in respect of this consent, and in any event no later than 1 June 2011, the Council will undertake a review for the Branch River downstream of the Branch hydro electric power intake weir for the purpose of determining the minimum sustainable flow requirements of the river. Amenity values will not be considered in this review.

Domestic water extraction up to 10 m^3 per day is exempt from requirements for metering or water permits. For non-domestic extraction the term of water permits will be 10 years where the cumulative volume of water allocated through individual water permits has reached the Class A and (where there is a Class B limit set) Class B allocation limits. This will allow the adverse effects of abstraction in a situation of full or over-allocation to be addressed in a timely fashion. A 10 year term is also appropriate where water is to be taken from a water resource for which no SFR has been established due to the uncertainty over the cumulative effects of water extraction in these circumstances.

The full and over allocation of water resources are issues being addressed through the review of the Wairau/Awatere Resource Management Plan. A water allocation framework that directs how these issues are to be resolved will be notified before December 2014, as required by the National Policy Statement Freshwater Management 2011. It is likely that the implementation of this framework will remove the need to limit duration in the manner set out in Policy 6.3.1.1.3.

Resource reviews will be undertaken every 5 or 10 years depending on location, to ensure ongoing sustainable and equitable management of the resource. The interval of resource review is related to the level of understanding for the particular resource. The longer the interval between reviews for example 10 years, the greater the understanding of the resource and less potential there is for adverse effects.

Users will not be required to apply for renewal of consent at either the 5 or 10 year interval as terms will be granted for 30 year periods. Instead, the Council will use monitoring information gathered over the 5 or 10 year period to determine the appropriateness of the existing quota volumes.

Where monitoring information indicates that allocation management is not sustainable, consent volumes will be reduced on a pro rata basis across all existing water permits for that resource. Monitoring information can also indicate situations where more users can be granted permits. Individual monitoring information gathered from water meter readings will be used to consider the appropriateness of an individual's allocation volume. Modifications could include reducing allocation volumes.

It should be noted that to date, renewal of a water permit for the Wairau Aquifer has not been refused given the availability of supply.

Water will be allocated on a 'first come, first served' basis through the triple class permit system of allocation. This framework allows a certain quantity of water to be allocated to users. This quantity is called a Class and, as successive permits are issued,

the allocation available within the class reduces and eventually becomes fully allocated. No further allocations will be made in that class except in the following cases:

- *Where the existing full allocation volume is reassessed and is increased, or a resource is assessed as having a larger safe yield, as a result of more information being available;*
- *Where part of the existing full allocation volume becomes available following a permit renewal which reduces the volume attached to an existing permit;*
- *Where part of the existing full allocation volume becomes available following the revoking of an existing permit.*

Three classes of water permit exist for each of the water resources, Class A, Class B and Class C. Allocation moves sequentially through each of the classes, from Class A to Class C (for further explanation of the triple class allocation system refer to the General Rules in Volume Two). Applications for allocations may be made outside of the triple class system but are Non-Complying activities unless they are Prohibited.

The SFRs set shall form the basis of maximum allocation of water. The formula shall be applied as follows:

- *The maximum allocation shall be determined on the five year, seven day, low flow of the water body less the SFR of this waterbody if set, otherwise on a case by case basis.*

Not all activities will be required to fit water meters as a condition of a water permit. Non-consumptive diversions for example may be required to monitor and record water levels being diverted by some other appropriate means. However, water meters will be a condition of all abstraction consents. Where a damming consent is required in addition to abstraction consent a water meter may not be required. Where damming is able to occur without abstraction consent and is not a Permitted Activity, a water meter will be required at the outflow point.

Priority areas include Waihopai River, Awatere River and Southern Valleys Water Management Zone.

6.4 Issue

The inefficient use of fresh water resources can compromise the sustainability of the resource.

Efficiency relates to both the use of water resources and administrative efficiency. Section 7(b) of the Act requires the Council to have particular regard to the efficient use and development of natural and physical resources. In addition to a statutory requirement, it is an effective way for meeting increasing demand for water in water short management zones without compromising the sustainability of the resource. In the longer term, efficient water use is essential if equity and sustainability of resource use are to be achieved in Marlborough.

6.4.1 Objectives and Policies

Objective 1	**To establish an efficient resource use regime and support sustainable management of the freshwater resource.**
Policy 1.1	To enable more efficient use of fresh water resources through implementation of a triple class water permit system.
Policy 1.2	To allocate water on the basis of guidelines.
Policy 1.3	To encourage water storage in water short areas, for use during low flow and level periods, by exempting water retained in storage from

	any conditions on use, and when flows are high allowing water to be drawn off for storage purposes.
Policy 1.4	To encourage use of groundwater resources in preference to surface water resources, where groundwater is of sufficient quantity. This particularly applies to Gibsons Creek, Omaka River Valley Aquifers and the Fairhall River Gravels Aquifer.
Policy 1.5	To cancel water and discharge permits subject to Section 357 and 358 of the Act, where a resource consent has been issued, but is not given effect to (for example by installation of infrastructure, or use of water or by undertaking discharging) for a continuous period of two years, and where reasonable justification for the lapse of the consent cannot be given
Policy 1.6	To discourage the diversion and transport of water out of water short catchments, especially the Southern Valleys Aquifer Management Zone.

The policies will enable and encourage more efficient watercourse use throughout the water management zones covered by this Plan. This will be achieved in a number of ways.

A more efficient, flexible triple class water allocation system, which will more closely match water demand and supply, enabling more efficient water allocation use, while still providing an efficient SFR to protect the sustainability of the resource. This will be particularly important for surface water systems, where excess flow during wetter periods is currently lost to the system (for an explanation of the triple class allocation system refer to Volume Two).

The provision of incentives for the storage of water should encourage users to abstract water during wetter periods for storage and subsequent use during drier periods.

Allocation will be based on water allocation guidelines which have been determined for a number of activities through research. This will enable the Council to share water equitably between users and will provide a mechanism which prevents users "tying" up water for possible market gain.

Similarly, where choice exists the Council will encourage use from groundwater resources instead of surface water resources when the former have greater capacity and when the adverse impacts associated with use of groundwater systems will be less. This approach is justified because groundwater resources have a built in storage.

The Council will permit the transfer of water permits between users within a water management zone, where the environmental effects are generally minor. However, the diversion or transport of water out of a water management zone can have significant adverse environmental effect and will require a resource consent. Given the limited quantity of water in the Southern Valleys Water Management Zone, the Council will prohibit the diversion or transport of water out of that zone. Discharge permits may not be transferred from site to site within a catchment. Section 137 of the Act permits only the transfer of a discharge permit to any owner or occupier of a site in respect of which the permit is granted, where notice is given to the Council.

6.5 Issue

Water use during periods of low flow and levels can create adverse effects on fresh water systems.

Although the Wairau catchment has a large groundwater resource, the rivers and streams in the Wairau/Awatere plan area can be affected by very dry seasons which result in reduced flows and in some cases no flow at all. This creates a problem where

water users do not have access to groundwater resources as an alternative supply to surface water.

Given the fact that periods of low flow generally coincide with maximum periods of use for irrigation, there is considerable potential for the taking, use, damming or diversion of water to create adverse environmental effects on the fresh water ecosystem, in addition to the potential to create increased conflict between users. The discharge of contaminants to surface water during periods of low flow or levels can have considerable adverse effects on the environment and on other users by degrading water quality so that existing uses cannot be met, as there is less water available to dilute the contaminant.

It is therefore important that the Council develops a water allocation system which specifically outlines the process to be followed to achieve the equitable management of competing demands and sustainable management of freshwater resources during periods of low flow. This system will need to incorporate the cessation of point source discharges at specified levels to protect the life supporting capacity of the resource and enable other consumptive and non-consumptive uses to be met. Cessation of discharges will be set at levels to enable the water classification standards to be met, in all but exceptional circumstances.

6.5.1 Objectives and Policies

Objective 1	**To achieve sustainable, equitable and efficient allocation of water during periods of low surface water flows or low groundwater levels.**
Policy 1.1	To set flows and levels for the following freshwater resources which indicate when imminent rationing of water taking is necessary, when point source discharges must cease, and when rationing and suspension of take is required to stay above the SFR. Resource systems for which rationing levels will be defined include: • Awatere River ; • Omaka River Valley Catchment; • Waihopai River; and • Fairhall River Gravels Aquifer.
Policy 1.2	To include conditions on new water permits requiring users to reduce and suspend takes when specified flows or levels are reached.
Policy 1.3	To include conditions on new discharge permits requiring users to cease point source discharges when specified flows are reached.
Policy 1.4	To review existing water permit conditions within 24 months of this Plan becoming operative, at which time conditions will be imposed requiring the rationing of water where unrestricted use could otherwise result in a breach of an SFR.
Policy 1.5	To review existing discharge permit conditions within 24 months of this plan becoming operative, to impose conditions requiring cessation of discharge at specified levels.
Policy 1.6	To establish Water User Groups for the following fresh water resources to encourage water users to reach voluntary agreements

	to achieve an overall reduction in the take, use, damming or diversion of water: • Awatere River; • Omaka River Valley Catchment; • Waihopai River; and • Fairhall River Gravels Aquifer.
Policy 1.7	To ensure that priority is given to "an individual's reasonable domestic needs, the reasonable needs of an individual's animals for drinking water and for fire fighting purposes" during rationing.

The objectives and policies proposed here are designed to establish a formal rationing strategy which will apply to all water resources and water users in the district, to ensure that resource use remains sustainable. Incorporating the rationing strategy in the Plan will ensure that a consistent and equitable management strategy is implemented. This will reduce the potential for conflict associated with ad hoc decision making at times of low flows or levels.

The rationing strategy is outlined in Volume Two of this Plan. The strategy includes the formula used by the Council to determine a range of rationing trigger levels and the level at which point source discharges must cease. Conditions will need to be imposed on consents so that compliance with the rationing policy can be required. It is also important that the rationing system is flexible enough to allow for rostering and other voluntary agreements between users to achieve the desired reduction on a particular resource. To achieve this Water User Groups will be established to implement and manage the rationing systems for particular resources.

The SFRs set shall form the basis of maximum allocation of water. The formula shall be applied as follows:

- *The maximum allocation shall be determined on the five year, seven day, low flow of the water body less the SFR of this waterbody if set, otherwise on a case by case basis.*

6.6 Issue

The abstraction of water from the Waihopai into Gibsons Creek is a special case.

The Gibsons Creek channels (beneath the terrace upstream of Renwick) are old Waihopai distributory channels. Prior to 1916 the Waihopai River regularly flowed down these channels and into the Upper Opawa River. This was of benefit to riparian users for stockwater and groundwater recharge. In 1916 river flood control works blocked off this distributory channel from the Waihopai.

In 1960, as flood control compensatory work, a new abstraction gate and channel from the Waihopai was constructed. This was permitted to take up to 2.8 m^3/sec from the Waihopai, and water rights have since been given from this abstraction.

The importance of the abstraction has decreased in recent years due to moves away from pastoral farming and improvements to pumps increasing groundwater take from the Wairau aquifer.

Objective 1	**To recognise that Gibsons Creek channels are old distributory channels of the Waihopai and to provide for:** • **The aesthetic and ecological values of Gibsons Creek;** • **The existing legal water right users and; supply water for groundwater recharge where it is most effective.**
Policy 1.1	Continue to operate the Gibsons Creek abstraction from the Waihopai River within practical limitations.
Policy 1.2	To set an SFR for the Gibsons Creek channels to provide for the ecological and aesthetic values of Gibsons Creek channels upstream of Blenheim Street.
Policy 1.3	To provide adequate water for Class A water permit users (under the new triple class water permit system) as existing legal water right users.
Policy 1.4	To recharge the groundwater aquifer in the "Woodbourne" reach downstream of Blenheim Street, and from the Omaka confluence down to Jacksons Road.
Policy 1.5	To maximise the groundwater recharge in the "Woodbourne" reach by supplementing flows with Class C water permit abstraction to the extent limited by the current practical size of the Gibsons Creek system.

The policies will aid understanding of the particular circumstances relating to Gibsons Creek, the practical limitations on abstraction and the potential for groundwater recharge, while protecting aesthetic and ecological values.

6.7 Methods of Implementation

Rules	Rules are used to ensure that the taking, use, damming and diversion of water does not adversely affect the life supporting capacity of the resource while still providing for the social, economic and cultural wellbeing of the community. Rules incorporate the setting of SFR and the application of water classifications to all fresh water resources. All activities are required to comply with the SFRs and water classifications. Rules are also used to achieve the equitable and efficient management of freshwater resources, particularly during periods of low flow or levels.
Education	Inform water users of techniques and equipment which are most effective at conserving water. This campaign will apply to domestic and commercial water users. Run programmes to educate the community about fresh water resources in the District, and the associated values and uses of those resources, and the importance of complying with water classification standards and SFRs to protect those values. Require self-monitoring of abstraction and discharges to educate users about the effects of their activities on the water resource.

	Inform water users about the effects of their activity on other users, in particular the adverse effects associated with location and operation of bores, intakes and dams, and the inequity associated with water allocations above that reasonably required by the user.
Public Information	Publicise appropriate flow and level information during dry periods via the media to inform water users when rationing is imminent and when point source discharges should cease and when rationing is required.
Liaison	Continue to liaise with iwi, Nelson-Marlborough Fish and Game Council, Department of Conservation, water users and the community regarding the value assigned to resources in terms of their cultural, recreational and ecological requirements. This information will be considered when reviewing and establishing SFRs and reviewing the water classification standards. To encourage water users to reach voluntary agreements, the Council will establish Water User Groups for resource systems where rationing levels have been set, these being: • Awatere River; • Omaka River Valley Catchment; • Waihopai River; and • Fairhall River Gravels Aquifer. Where other resource systems begin to experience water shortages rationing trigger levels and Water User Groups will be established. This will be implemented by way of a plan change. Liaise with Water User Groups during rationing periods to ensure rationing of consent allocations is consistent with the Council's rationing strategy, yet still sustainable (ie; prevents SFRs from being breached by abstractions). Liaise with bordering district and regional councils, in particular Canterbury Regional Council, to ensure that cross boundary issues are dealt with in a consistent manner
Incentives	Use incentives to encourage the efficient use of water. Incentives will include Controlled Activity classification for some water permits, and will include exemption of water retained in storage from controls, particularly controls during rationing periods. The Council will also make some permits available to those users with existing storage when permits are renewed.
Research	Commission research into drought planning for the region. Continue research to better determine efficient water use requirements for different activities. Also undertake specific research to determine the actual daily consumption of water from domestic properties for reasonable use. This information will be used to guide land management decision making in water short management zones.

	Support further research into the in-stream requirements of fresh water resources.
Monitoring	Undertake enhanced surface water quality monitoring to determine the relative contributions of point and non-point source discharges, and to determine baseline water quality across the planning area. Use district wide surface flow and groundwater level monitoring information and climatic data to identify the points at which rationing is imminent and required. Use water meter readings to determine actual use requirements. These will be used together with the results of scientific studies of the water use requirements of specific crops or land-use systems, to allocate water more efficiently. Use water meter readings to determine the appropriateness of quota on water permits and to measure compliance during rationing periods. The Council will keep a register of bore, intake and dam locations to ensure new bores and intakes do not adversely affect existing users. Continue to monitor the flows and levels of fresh water bodies, paying particular attention to those which are nearing full allocation. Information will be gathered to determine the ongoing sustainability of existing SFRs and to set sustainable SFRs for other resources.
Enforcement	Undertake enforcement during the period when rationing is required, by monitoring use from meter readings and undertaking spot checks of users to ensure that local water restrictions are not being breached. Enforcement provisions in the Act will be used to deter offenders.
Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a Riparian Management Strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume One of the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

Rules are essential for ensuring that use of water is reduced and suspended during periods of low flows to prevent the SFR levels from being breached. Rules will also enable enforcement procedures provided under the Act to be utilised to avoid or mitigate behaviour or activities which could result in significant adverse environmental effects.

To achieve effective compliance with the rationing strategy, the Council will need to undertake a comprehensive public information and education campaign to inform users of the effects of takes during dry periods, in addition to providing practical guidance which enables users to actually reduce their take. The monitoring information collected during the dry period should be used to teach people about their water consumption patterns. Being proactive in gaining community support is seen as a major priority in this process.

Given the potential for dry periods to affect different water resources in different ways, the rationing strategy may need to be adapted, as appropriate, to allow the most efficient possible rationing of water on a resource by resource basis.

It is also important that water permits are used within a reasonable time period to ensure that water is not being unfairly withheld from other users. The Act allows the Council to revoke a water permit, in full or in part, when the permit has not been used within two years of granting, to enable the consent quota to be pooled for reallocation. The Council intends to actively do this. This is particularly important in the water short areas.

Review of consents is essential for achieving equitable allocation of water, particularly within irrigation water short management areas, such as the Southern Valley's Water Management Zone. The Council is aware that a number of existing allocations are in excess of actual need and are unreasonably tying up water which could be used by other users. At the 5 or 10 year review periods, and at renewal, permit volumes will be assessed and amended to provide only for the maximum actual need of the users. This will enable a more equitable allocation of water.

The Council will use incentives, education and research to encourage the more efficient use of water. These are seen as effective ways of encouraging a change in behaviour which will result in the more efficient use of water. Education will be of assistance to users who may not be aware of how to make efficient use of their allocations.

Monitoring is needed to enable the Council to achieve equitable and sustainable allocation of the fresh water resources. Monitoring will provide important data on maximum actual use which will enable quota on renewed permits to be determined. The Council will not seek to unfairly restrict consumption of water. Therefore there will be no need for users to manipulate water meter readings. Monitoring will also enable compliance with rationing restrictions to be assessed.

One of the roles of the riparian management strategy is to investigate the appropriateness of existing riparian management detailed in this and other chapters and the rules contained in Volume Two of the Plan. If, following this investigation, changes to plan provisions are required then those changes will be pursued through the plan change process.

6.8 Anticipated Environmental Results

- Maintenance of flows in surface water systems, and levels in groundwater systems which do not breach the SFR;
- Maintenance of freshwater quality for resources which currently meet water classifications;
- Enhancement of freshwater quality to enable progress towards the water classifications which cannot currently be met;
- Protection of in-stream habitat and ecology;

- No lessening of the in-stream value classifications set out in Appendix A;
- Maintenance of natural character of high and very high value fresh water resources;
- Avoidance of reductions in spring flows;
- Prevention of landward shift of the marine and fresh water interface;
- Prevention of damage to the physical structure of aquifers;
- Reduced conflict between users reported to the Council;
- Reduced interference between neighbouring bores;
- Adequate provision of SFRs measured by fish number surveys, including protection of fish passage and spawning grounds;
- Protection of the Mauri of specified fresh water resources;
- Less feedback to the Council that allocations are not being fully used;
- Maintenance or enhancement of amenity values;
- Protection of significant indigenous vegetation and significant habitats of indigenous fauna;
- Social, economic and cultural well-being of the communities; and
- Improved understanding of existing freshwater quality and the effects of point and non-point discharges on water quality.

The following Policies have been added to this plan as directed by the National Policy Statement Freshwater management 2011 in accordance with Section 55 of the Resource Management Act 1991.

6.9 Water Quality

1. When considering any application for a discharge the consent authority must have regard to the following matters:

   a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and

   b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.

2. This policy applies to the following discharges (including a diffuse discharge by any person or animal):

   a) a new discharge or

b) a change or increase in any discharge –

of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011.

7.0 Water Quantity

1. When considering any application the consent authority must have regard to the following matters:

   a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and

   b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.

2. This policy applies to:

   a) any new activity and

   b) any change in the character, intensity or scale of any established activity –

   that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011.

7.0 Air

7.1 Introduction

There is very little data on air quality for the Wairau/Awatere part of the region. The general perception is that there is not an air pollution problem in Marlborough and that the atmospheric climate is typified by a high level of visual clarity. The relatively strong and high frequency of wind tends to disperse any effects of contaminants.

Air quality concerns can be divided into three categories: global, local and nuisance.

Discharge of certain contaminants can have global impacts. The most important of these to New Zealand are the discharge of ozone depleting substances and 'greenhouse gases'.

Both global warming and a depleted ozone layer have the potential to adversely affect the health and wellbeing of the people of the district. Ozone depletion can give rise to increased occurrence of skin cancers in animals and humans and affect plant growth. Global warming may make existing ecosystems unsustainable and cause sea level rise.

Local contamination of the air occurs through a wide variety of discharges:

- Smoke emission is a cause of winter smog conditions in Blenheim and other concentrated residential areas. This has associated health, odour, visual and amenity effects;
- Emissions from the open burning of garden, household, farm and other waste may have localised effects on visibility, amenity values and enjoyment of an area. It may also release toxic or hazardous chemicals to the environment;
- Emissions from industrial and trade processes include a wide range of activities and potential effects;
- Spraying of pesticides may cause plant, animal and human health effects;
- Odour is a localised issue associated with some particular land use activities such as some industrial and trade premises, infrastructure such as sewage management, and some agricultural activities. It may have considerable nuisance value associated with it;
- Dust is generally a localised and temporary problem associated with a small range of activities; and
- Vehicle emissions include particulates, aerosols, gases such as carbon monoxide and carbon dioxide, and contaminants such as benzene.

The Resource Management Act (the Act) divides the control of the discharges to air into two types. In the first category, discharges from industrial or trade premises are not permitted unless the discharge is expressly allowed by a rule in this Plan, resource consent, or regulations. In the second category, discharges from all other sources are allowed unless the discharge contravenes a rule in this Plan. The Act allows some existing discharges to continue.

The rules in this Plan aim to allow a range of activities to continue, while ensuring that any adverse effects on air quality are avoided, remedied or mitigated. However, discharges from vessels, motor vehicles and trains are not managed by the content of this Plan. Like global issues, these discharges need to be addressed as national issues.

7.2 Issue

Managing air quality in the Wairau/Awatere area in the absence of ambient air quality information.

Ambient air quality refers to the overall quality of the air and is a measure of its variation from a pristine state. As such, it is a measure of the cumulative effects of human and natural activities on air quality. Knowledge of ambient air quality is essential for an effects-based air quality management program.

Setting standards without knowledge of the ambient air quality, has inherent disadvantages as resultant standards may in effect grant license to pollute. This would certainly be the case if air quality standards developed for major New Zealand cities were to be adopted for the Wairau/Awatere area.

The Plan therefore sets minimum standards for industrial and business zones as a precautionary means of dealing with the immediate effects of discharge to air while maintaining the primary focus on monitoring ambient air quality.

7.3 Objectives and Policies

Objective 1 **To maintain or improve where appropriate existing air quality.**

Policy 1.1 The establishment of air quality indicators and the monitoring of the air resource, to indicate the cumulative effects of activities on ambient air quality.

Policy 1.2 Adopt the following provisional indicator measures for ambient air quality:

Indicator	Guideline	Averaging Time	Method of Measurement
Particulates (PM_{10})	120 $\mu g/m^3$	24 hours	AS 3580.9.6-1990
	40 $\mu g/m^3$	Annual	AS 3580.9.7-1990
Sulphur Dioxide	500 $\mu g/m^3$	10 minutes	AS 3580.4.1-1990
	350 $\mu g/m^3$	1 hour	
	125 $\mu g/m^3$	24 hours	
	50 $\mu g/m^3$	Annual	
Carbon Monoxide	30 mg/m^3	1 hour	AS 2695-1984
	10 mg/m^3	8 hours	
Ozone	150 $\mu g/m^3$	1 hour	AS 3580.6.1-1990
	100 $\mu g/m^3$	8 hours	
Nitrogen Dioxide	300 $\mu g/m^3$	1 hour	AS 3580.5.1-1993
	100 $\mu g/m^3$	24 hours	
Lead	0.5-1 $\mu g/m^3$	3 months	AS 2800-1985
Fluoride	*Special Land Use*		
	1.8 $\mu g/m^3$	12 hours	AS 3580.13.1-1993
	1.5 $\mu g/m^3$	24 hours	AS 3580.13.2-1991
	0.8 $\mu g/m^3$	7 days	
	0.4 $\mu g/m^3$	30 days	
	0.25 $\mu g/m^3$	90 days	

Indicator	Guideline	Averaging Time	Method of Measurement
	General Land Use		
	3.7 μg/m^3	12 hours	AS 3580.13.1-1993
	2.9 μg/m^3	24 hours	AS 3580.13.2-1991
	1.7 μg/m^3	7 days	
	0.84 μg/m^3	30 days	
	0.5 μg/m^3	90 days	
	Conservation Areas		
	0.1 μg/m^3	90 days	
Hydrogen Sulphide	7 μg/m^3	30 minutes	AS 3580.8.1-1990

Policy 1.3 Monitor and review ambient air quality indicators and standards during the life of this Plan.

Ambient air quality is dependent on the distribution and scale of contaminant discharges, and regional climate. The above indicators are selected as appropriate for monitoring ambient air quality in the Wairau/Awatere. This is implementing a precautionary approach to management of discharges to air. Monitoring ambient air quality entails measurement of long-term trends rather than short-term events. This Plan will undertake air quality monitoring to enable development of an ambient air quality management strategy in the next Plan. Information on ambient air quality allows the Council to:

- *Identify and prioritise air quality issues;*
- *Justify control over discharges to air;*
- *Assess policies for management of air quality;*
- *Assess effectiveness of discharge control measures; and*
- *Monitor long-term trends in air quality.*

It is necessary to set appropriate air quality indicators and standards for assessment purposes. These will give an indication of the effect that discharges to air have on the receiving environment.

7.4 Methods of Implementation

Monitoring

Establish objectives and monitoring criteria based on a region wide assessment of monitoring needs that meet the requirements of local and national interests.

Develop an air quality monitoring strategy and establish a monitoring network.

Set regular review periods to assess the effectiveness of the program and define other monitoring requirements.

Maintain an emission inventory during the life of this Plan.

The only method of quantifying air quality is to monitor it. Monitoring air quality is both expensive and resource intensive. The most effective way of meeting monitoring needs is through a collaborative approach with other councils, both in establishing and running the monitoring program and sharing available data and equipment.

7.5 Issue

Enabling the community to provide for its health and wellbeing.

Rules within this Plan manage air quality by permitting discharges from industrial or trade premises (subject to various conditions) and regulating all other discharges. Many of the rules in this Plan are therefore directed at permitting a range of activities to continue, while ensuring that any adverse effects on air quality are avoided, remedied or mitigated.

7.6 Objectives and Policies

Objective 1	**The adverse effects of discharging contaminants into air are avoided, remedied or mitigated, including adverse effects on local ambient air quality, community wellbeing, amenity values, resources or values of significance to tangata whenua, ecosystems, and water and soil.**
Policy 1.1	Ensure that all persons discharging contaminants into air, avoid, remedy or mitigate any adverse effects arising from that discharge. This includes all effects likely to be noxious, dangerous, offensive, or objectionable to such an extent that there is an adverse effect on the environment.
Policy 1.2	Promote measures which avoid, remedy or mitigate the discharge of contaminants to air at their source.
Policy 1.3	Ensure that any measures adopted avoid, remedy or mitigate the effects of discharge of contaminants to air.
Policy 1.4	Promote the use of industry guidelines as a means of reducing the effects of discharges from industrial premises.
Policy 1.5	Encourage use of voluntary guidelines and best practices for use of agrichemicals.

Most discharges to air are a form of waste disposal in that they contain unwanted by-products of processing. It is now standard practice to minimise waste at source. These policies apply this principle to the discharge of contaminants to air. Measures to control discharges can themselves have an impact on the environment. For example, scrubbers using water can contaminate water with heavy metals, and hence there is also a need to mitigate the effects of mitigation measures.

7.7 Methods of Implementation

Rules	Rules enable the discharge of contaminants to air from industrial trade premises and other potentially significant point sources by:

	• Permitting with conditions, discharges which have no, or only minor, adverse effects on human health, amenity values, or natural and physical resources; • (Requiring a discharge permit for all discharge which if uncontrolled, may have adverse effects on human health, amenity values or natural and physical resources; and • Rules, standards and conditions have been developed for activities that: generate dust; produce odour; require the application of agrichemicals; and, produce smoke.
Education	Provide information on the adverse effects of burning treated timber to the community.
Enforcement	The Council will issue abatement notices and enforcement orders where significant adverse effects are created by noxious, dangerous, offensive or objectionable odours.

Ensure that adequate educational material is available for users of agrichemical on the prevention and minimisation of adverse effects on non-target plants and animals.

Rules are based on environmental effects of discharges of contaminants to air. Education will be used for these matters where environmental effects are minor or the adverse effects are temporary and occur infrequently. For effects on the environment arising from global trends, regulatory approaches applied within the Plan area are unlikely to bring about resolution of the issue, but should prevent further contribution to the related adverse effects.

Where the Council has determined through monitoring and assessment of activities that there are significant adverse effects being created by noxious, dangerous, offensive or objectionable odours, then it will use its powers under the enforcement provisions of the Act.

7.8 Issue

The depletion of atmospheric ozone and increase in greenhouse gases caused by discharges to air.

Reduction of the global protective ozone layer allows more ultraviolet radiation to reach the earth's surface. This can have adverse effects on both human health and sensitive ecosystems. In humans this can mean skin cancers and eye damage. It will also affect plant growth, animal health and marine ecosystems. Substances which reduce the ozone layer include a group of chemicals used in aerosols, refrigeration and electronics.

The effects of reduced ozone will be highly significant in Marlborough due to the high annual sunshine.

Activities such as increased energy use and industrialisation have increased carbon dioxide, atmospheric methane and nitrous oxide concentrations. Altering the concentrations of these greenhouse gases gives rise to the phenomenon known as global warming. The possible consequences of global warming include:

- Changes in climatic patterns, including greater frequency of extreme weather events;

- Rising sea levels due to thermal expansion of the oceans and melting ice caps;
- Damage to ecosystems and increased soil erosion as a result of climatic changes.

At present, the extent and magnitude of the effect of global warming is unknown. However, even small alterations in climate may affect social and economic wellbeing as well as the natural environment.

7.9 Objectives and Policies

Objective 1	**Reduction of discharges into air of ozone depleting substances and greenhouse gases to a level which is consistent with central government initiatives and directives.**
Policy 1.1	Support and promote, as appropriate, central government initiatives to reduce discharges of ozone depleting substances and greenhouse gases.
Policy 1.2	Provide input to central government on the effects of its policies on the Wairau/Awatere environment.

Depletion of the ozone layer is a global issue. Initiatives and policies need to be co-ordinated on a national level within the framework of international protocols or agreements the government has signed, such as the Montreal Protocol. The Ozone Layer Protection Act 1990 (and its amendments) is the Government's main tool for implementation of protocol obligations. The role of the Council is primarily advocacy, promotion of public awareness and, implementing and monitoring national policies.

It is difficult to predict how changes to the climate will impact on Marlborough except to suggest the region will become hotter and drier. Therefore many agricultural and horticultural practices may no longer be sustainable without significant irrigation.

Central government has primary responsibility for co-ordinating the reduction of greenhouse gas emissions in New Zealand, and has set a target which will hold net carbon dioxide levels at 1990 levels by the year 2000.

7.10 Methods of Implementation

Rules

Rules enable the discharge of contaminants to air from industrial trade premises and other potentially significant point sources by:

- Permitting subject to conditions, discharges which have no, or only minor, adverse effects on human health, amenity values, or natural and physical resources.
- Requiring a discharge permit for all discharges which if uncontrolled, may have adverse effects (other than minor effects) on human health, amenity values or natural and physical resources; and
- Regulating through standards and conditions, activities that: generate dust; produce odour; require the application of agrichemicals; and produce smoke.

Liaison	Liaise with the appropriate central government agencies to ensure consistency with central government air quality management initiatives.
Education	Provide information on the adverse effects of burning treated timber, composite wood products, plastics, rubber, hazardous substances and their containers, oil based products, aerosol cans and foam products. Ensure that adequate educational material is available for users of agrichemicals on the prevention and minimisation of adverse effects on non-target plants, humans, and animals. Promote the recovery, re-use and recycling of ozone depleting substances and encourage the use of alternative technologies where appropriate. Promote more efficient use of fuels and the use of less polluting fuels (e.g. electricity rather than open fires for domestic heating), including fuels used in motor vehicles. Promote industrial and waste management practices that reduce greenhouse gas emissions.
Advocacy	Provide local input to central government on the effects of its policies in Marlborough and the development of future government policy.
Guidelines	Promote information on appropriate land use practices and encourage use on voluntary guidelines and best practices
Monitoring	Monitor the changes in ambient air quality.

Rules are based on environmental effects of discharges of contaminants to air. Education will be used for these matters where environmental effects are minor or the adverse effects are temporary and occur infrequently. For effects on the environment arising from global trends, regulatory approaches applied within the Plan area are unlikely to bring about resolution of the issue, but should prevent further contribution to the related adverse effects.

The objectives, policies and methods that have been adopted reflect the differing central and local government roles. Many of the methods help meet waste management, energy efficiency and transportation objectives.

The role of the Council is primarily one of advocacy, promotion of public awareness and implementation and monitoring of national policies on a local basis. Development of a regulatory approach would be difficult and prohibitively expensive. However, the Council will still need to monitor the effects of Government policies on the Marlborough environment. The Council has an obligation to the people of Marlborough to make any adverse effects of national policies known to Government.

7.11 Anticipated Environmental Results

Implementation of the policies and methods relating to air will result in:

- No measurable deterioration in ambient air quality throughout the Plan area; and
- Local ambient air quality being enhanced in those areas where it is, or has been, degraded by specific discharges of contaminants to the air.

8.0 Public Access

8.1 Introduction

New Zealanders have high expectations with respect to access to and use of the high country, coast, wetlands, lakes and rivers. The expectation is just as high in the Wairau/Awatere Plan area as it is for the Marlborough Sounds.

The Resource Management Act 1991 (the Act) requires as a matter of National Importance that public access to and along the coastal marine area, lakes and rivers be maintained and enhanced.

In respect of the East Marlborough Coast the situation regarding land ownership is somewhat unique in that much of the area immediately landward of the mean high water spring is reserve land owned and administered by the Department of Conservation including:

- Land held for conservation or recreation purposes, and legal roads in particular the foreshore between Rarangi and the Wairau Bar;
- The Boulder Bank and south to the Awatere River (excluding two small sections north and south of White Bluffs);
- Various sections south of Flemings Road and Blind River;
- Most of the land between Lake Grassmere and the mean high water springs;
- Marfells Beach; and
- Chancet Rocks.

Legal road land (formed or unformed) along the coastline is administered by the Council or Transit New Zealand, as appropriate.

The lighthouse reserve at Cape Campbell is administered by the Ministry of Transport (Maritime Transport Division).

Access nevertheless is often restricted because of physical geography.

The remainder of the coastal land is privately owned with much of it being used for low to moderate density pastoral farming.

The Wairau/Awatere is also fortunate in that it is served by networks of rivers, tributaries and streams which bring with them significant opportunities in terms of access. Many of the rivers have legal roads or other forms of public reserve running along the river edges. In addition to being corridors into the landscape, rivers provide significant opportunities for the creation and/or enhancement of tracts of ecological habitat.

In the more populated area of the Lower Wairau Valley there is a recorded history of flood plain management with stopbanked river floodways much of it in Council ownership, and thus public ownership of riparian margins is high and public access can be readily achieved. In some instances private ownership (riparian rights) may compromise instream values and public access. Notwithstanding, the general expectation of access to the coast, lakes, rivers and wetlands, there are circumstances where it is appropriate that access is limited or needs to be limited. The New Zealand Coastal Policy Statement and Marlborough Regional Policy Statement outline those circumstances. For example:

- To protect areas of significant vegetation and/or significant habitats of indigenous fauna;
- To protect Maori values;
- To protect public health and safety;
- To ensure a level of security consistent with the purpose of a resource consent; and
- In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access.

In addition to promoting public access to and along waterways the Council also seeks to promote public access and recreational use of public land resources. For the Wairau/Awatere planning area this is particularly important to the hills and mountains which make up the high country. Recreational use of public high country land includes peoples involvement in activities such as tramping, hunting, fishing, skiing, mountain biking as well as more passive activities such as sight seeing. The Molesworth and Rainbow Stations are becoming increasingly used and valued for tourism and recreational use.

8.2 Issue

Managing activities so that access to and along the coast, lakes, rivers and other public land is maintained at current levels and wherever practicable enhanced.

The effects arising from activities and the development of resources can adversely impact on public access and peoples enjoyment of public reserves. Some activities can also limit recreational use of rivers, lakes, the coast and public land.

Within the coastal marine area, structures can compromise the right of access. Other activities such as marine farming, while having the potential to bring economic benefits to the district, not only physically impede access over water, but may also have a psychological effect in limiting people's interest in accessing an area for recreational purposes.

The Marlborough Regional Policy Statement advocates that the continued recreational use of marine resources is essential to the continued social wellbeing of the community. It is appropriate that the Council places a high priority on maintaining public access for recreational purposes.

8.3 Objectives and Policies

Objective 1	**That public access to and along the coastal marine area, lakes and rivers be maintained and enhanced.**
Policy 1.1	Avoid, remedy or mitigate the adverse effects on public access caused by the erection of structures, works or activities in or alongside lakes and rivers.
Policy 1.2	Adverse effects on public access caused by the erection of structures, marine farms, works or activities in or along the coastal marine area should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects, to the extent practicable.

Policy 1.3	Continue to assess the need to enhance public access to and along the coastal marine area, lakes and rivers.
Policy 1.4	Acquire esplanade reserves, and negotiate esplanade strips, at the time of subdivision or development, in accordance with the criteria set out in Volume Two (Subdivision Requirements).
Policy 1.5	Purchase esplanade reserves and negotiate esplanade strips as and when funding permits.
Policy 1.6	To facilitate public access on Council owned or managed floodway land.
Policy 1.7	Acknowledge that public access to and along the coastal marine area, lakes, wetlands and rivers may be restricted: • To protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna; • To foot access; • To protect Maori cultural values; • At times of fire risk; • To protect public health and safety; • To ensure a level of security consistent with the purpose of a resource consent or designation; or • In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access.
Policy 1.8	Esplanade reserves or esplanade strips should be set aside or created where loss of public access to the Coastal Marine Area will occur as a result of a reclamation or other development proposals.
Policy 1.9	Recognise the benefits of the use of unformed public roads as a means to enhance access to and along water bodies.

The objective and policies seek to optimise public access, as well as ensuring that any adverse effects of encouraging public access are avoided, remedied or mitigated.

Objective 2	**That public access to and within publicly owned land, be maintained and enhanced.**
Policy 2.1	Avoid, remedy or mitigate the adverse effects on public access caused by activities within or near to public land.
Policy 2.2	To facilitate public access and recreational use of Council owned land.
Policy 2.3	Ensure that public access and recreational use do not compromise any important conservation values.

Policy 2.4	Recognise the benefits of the use of unformed public roads as a means to enhance access to public land.

8.4 Methods of Implementation

Rules	Riparian margins will be protected by controls on activities on rivers, lakes and streambanks. The Council may include conditions on resource consents that restrict the rights of public access in accordance with Policy 1.7.
Subdivision	The reserves policy establishes the circumstances under which esplanade reserves will be acquired.
Guidelines	The Council will prepare a set of guidelines on Riparian Management.
Research	The Council will carry out research to assess the need for enhancement of physical access to and along the coastal marine area, lakes and rivers.
Council Activities	The Council will develop management plans for Council owned or managed floodway land that incorporate access aspects in balance with commercial use and safety aspects.
Voluntary Agreement	On the basis of proven need the Council may negotiate for access strips to enhance public access to and along the coast area and the margins of wetlands, lakes and rivers.
Information	The Council will make available information on the location and area of esplanade reserves, esplanade strips and access strips taken on subdivision and development.
Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a Riparian Management Strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume One of the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

Rules and conditions are considered appropriate to use in the management of public access. The acquisition of esplanade reserves and negotiation of esplanade strips upon subdivision or development of land will enhance public access to the coast, lakes, rivers and wetlands.

In terms of the duties under Section 35 of the Act to gather information, monitor and keep records, the Council has to make reasonably available, amongst other things, information on the location and area of all esplanade reserves, esplanade strips and access strips. Some of these reserves/strips may have been taken for public access reasons and this information can be provided to the public on request. This information will also be made available through the Council's reporting processes on state of the environment monitoring and on the effectiveness and efficiency of policies, rules or other methods in the Plan - this last reporting process is a requirement of the Act (s.35(2A)).

One of the roles of the riparian management strategy is to investigate the appropriateness of existing riparian management detailed in this and other chapters and the rules contained in Volume Two of the Plan. If, following this investigation, changes to plan provisions are required then those changes will be pursued through the plan change process.

8.5 Anticipated Environmental Results

Implementation of the policies and methods relating to public access will result in:

- Public access maintained to at least current levels, and wherever practicable enhanced; and
- Improved access through the acquisition of esplanade reserves and negotiation of esplanade strips.

9.0 Coastal Marine

9.1 Introduction

East Marlborough's coastal marine area is highly varied with contrasts of rocky and mudstone reefs, gravel beaches and the shallow Wairau Lagoons.

Cloudy Bay is dominated by the marine gravel ridges of Rarangi and the 7 km long Boulder Bank. Behind this boulder bank are the Wairau (or Vernon) Lagoons. The Wairau Estuary, Chandlers, Big and Upper Lagoons are a large expanse of semi-enclosed shallow water. Water passes between the wetlands and the sea via a gravel and sand channel which has been extensively modified by a rock guide bank. This guide bank has been built, improved and maintained by Harbour and River Authorities for approximately 100 years.

Between the Boulder Bank and Cape Campbell to the south are the White Bluffs and steep shingle/gravel beaches. Mudstone platforms occur south of Cape Campbell. Between Cape Campbell and Wharanui the coastline is dominated by pea-gravel and gravel beaches interrupted by rocky headlands and reefs. The unique limestone outcrops of the Chancet Rocks and the Needles are located along this section of coastline. Sandy beaches and a small wetland at the Waima (Ure) River mouth are situated south of Ward Beach.

The East Marlborough Coast presents several issues of major concern to local iwi.

Discussion with other key users of the coast revealed the following commonly-voiced concerns or issues:

- Wairau Estuary and Lagoons - concerns relating to effluent discharges, management of the river mouth and protection of matters of iwi significance and special conservation elements.
- Coastal water quality.
- Access to and along the coast.
- Natural hazards.
- Coastal Development eg; the possible development at Clifford Bay of a ferry terminus which represents a significant new activity in the Coastal Marine Area (the effects of which have been examined through the Resource Consent process).

9.1.1 Coastal Occupancy Charges

The Resource Management Amendment Act 1997 gave regional councils the opportunity of introducing a charging regime for the occupation of coastal space within the coastal marine area. The amendment placed a responsibility on councils to place a statement in their regional coastal plans, either to set out a charging regime

or to say they will not do so. The Act also specified that any money so collected must be spent on the sustainable management of the coastal marine area.

Section 64A of the Act requires the Council to have regard to both public and private benefits in determining whether or not a coastal occupation charging regime should apply. The Council must consider the extent to which:

- Public benefits from the coastal marine area lost or gained; and
- Private benefit is obtained from the occupation of the coastal marine area.

The premise underlying coastal occupation charges is that exclusive occupation of the coastal marine area is a privilege not a right - it is public space over which everyone has a right of access, and if used so as to exclude others a similar option of use, the public should be compensated for that exclusion and loss of opportunity.

Most occupations will result in elements of both public and private benefit, and the extent to which they are exclusive will vary. The identification of benefits (public/private) is limited to those directly arising from a structure which is occupying the space, not the associated activity that is facilitated by that structure being present. The benefits or otherwise of the associated activity are assessed through the coastal permit process.

The Council has carried out an exercise to assess the relative benefits associated with different types of occupation. This has allowed a comparative assessment in terms of where the principal benefit lies. If charges are to offset the loss of public opportunity as a consequence of exclusive occupation, they should apply in principle wherever there is a net private benefit to the occupier.

In carrying out this exercise the Council considers that it is justified in principle in charging for occupation of coastal space in circumstances where net private benefit is greater than net public benefit. In these circumstances the Council is committed to introducing a coastal occupancy charging regime.

However there are a number of issues that need to be dealt with before a charging regime is introduced. There are some gaps in the information database the Council holds on the various occupations, particularly for moorings. The Council is also concerned at some of the inequities of the charging regime prescribed by the Act, particularly in relation to marine farm leases/licences issued prior to the introduction of the Act. The coastal occupancy charges are not applicable to these marine farms but are applicable to marine farms granted permission by way of resource consent.

Once these issues are addressed the Council will introduce a charging regime by way of future variation/plan change. Prior to charges being introduced the Council will carry out further investigatory work and undertake consultation (as required by the Act) with the community and other affected parties on the following:

- When a charge will be imposed;
- When charges may be waived;
- How the charges would be collected;
- What the level of charges would be;
- What the money would be spent on; and
- How the regime would be administered.

The Act requires that any money received by the Council from a coastal occupation charge must be used only for the purpose of promoting the sustainable management of the coastal marine area. Through the Marlborough Regional Policy Statement, this Plan and State of the Environment Monitoring, the Council has already set out some of the issues for sustainably managing the coastal marine area.

In the context of this Plan, issues concerned with promoting the sustainable management of the coastal marine area can be found in many of the chapters of the Plan, given the integrated nature of the document. However those chapters of specific relevance include the following: Tangata Whenua (2), Heritage (3); Flora and Fauna and their Habitats (4); Landscape (5); Public Access (8); Coastal Marine (9); and Natural Character (10).

9.1.2 Aquaculture Management

A reform of the legislation covering the management of marine farming – the Aquaculture Reform 2004 - came into effect on 1 January 2005. The aim of the reform was to create a more integrated aquaculture management regime, with a balance between enabling economic development, looking after the environment, settling the Crown's Treaty obligations to Maori, and responding to community concerns. As a result of this reform, marine farming is now mostly covered by the Resource Management Act, with one process for planning where marine farms should go and for granting consents for them to occupy coastal space. Areas for new marine farming (Aquaculture Management Areas – AMAs) need to be identified in the Plan, and coastal permits for marine farms within AMAs are issued by the Council. The Ministry of Fisheries contributes to the Plan process by testing for any undue adverse effects on commercial, customary or recreational fisheries prior to an AMA being approved in the Plan. Space within AMAs is also to be allocated to iwi to settle Maori claims to commercial marine farming.

The Act states that aquaculture activities (marine farming) can only take place within areas identified in the Plan as AMAs. Marine farming is prohibited outside AMAs. Council has the main role in managing marine farming in the Wairau/ Awatere plan area. Providing for marine farming within AMAs enables effects on the community, environment and economy to be managed in an integrated way through the Plan preparation processes, before individual applications for marine farms are considered. The cumulative effects of several marine farms in one area can also be considered.

The Ministry of Fisheries (MFish) continues to play a significant role in the creation of AMAs. Before starting on the public notification processes for including a new AMA in the Plan, Council must request MFish to undertake an assessment as to whether the proposed AMA would have an "undue adverse effect" on commercial, customary or recreational fishing. Areas within the proposed AMA that would unduly affect customary or recreational fishing will be removed from the proposal prior to notification. Any areas that would unduly affect commercial fishing will be identified in the Plan and anyone wanting to establish a marine farm in those parts of the AMA must first reach an agreement with the affected quota holders before they can apply for a resource consent.

Part of the Aquaculture Reform 2004 included the settlement of Treaty of Waitangi commercial aquaculture claims through the Maori Commercial Aquaculture Claims Settlement Act 2004. These provisions are intended to settle all Maori claims to commercial marine farming interests since September 1992. Iwi are provided with an allocation of area for marine farming equivalent to 20% of marine farming spaces

allocated since 1992 and 20% of new marine farming space. This is partly met through the allocation to iwi of some of the new space that comes available through the creation of AMAs. This is intended to ensure iwi have access to coastal marine space to develop their marine farming interests, and to allow the marine farming industry to develop without risks from ongoing Treaty claims.

Existing lawfully established marine farms are deemed to be AMAs, which means they do not need to be included in the Plan through a Plan Change. Marine farming permits and licences granted under previous Marine Farming and Fisheries legislation are generally deemed to be coastal permits.

When resource consents for a marine farm are about to expire, if the site is in an AMA, the existing marine farmer can make an application for a new marine farming consent for the same water space. The application from the existing marine farmer will be decided first, before any other application can be considered for that space.

Creating new AMAs requires a Plan Change. There are three different processes available to undertaken this:

- a Council-initiated Plan Change, where Council decides to undertake a plan change to establish an AMA in the coastal marine area;
- a standard Private Plan Change, where any person or organisation can request a change to the Plan to establish an AMA in the coastal marine area; and
- a Council Invited Private Plan Change (IPPC), which involves the Council inviting applications from the public to establish new AMAs. The Council may identify areas of the coastal marine area which will be excluded from applications. These Plan Changes are processed in a similar manner to Private Plan Changes.

All these processes follow the consultation and public notification processes set out in the Act.

Removal or modification of existing AMAs in the Plan, including deemed AMAs, also involves a Plan Change process.

Once an AMA is created, 20-40% of authorisations (or the right to apply for a resource consent for marine farming) are allocated by the Council to a trustee to resolve historic Treaty claims, and the remaining authorisations become publicly available.

Where AMAs have been created through a Council-initiated Plan Change, the remaining authorisations are allocated by public tender. Where an AMA has been created through the IPPC process the remaining authorisations are allocated to the person or organisation that requested the Plan Change. Where an AMA has been created through the Standard Plan Change process the Act specifies that the authorisations are allocated by public tender unless an alternative method of allocation is used. Once the authorisations have been allocated, the holders of the authorisations then need to apply for resource consents for marine farming.

9.2 Issue

Maintenance and improvement of water quality of the open coast and the Wairau Lagoons.

The East Coast's water quality is currently very high and there are no direct effluent discharge points other than those in the Wairau Lagoons area.

The Wairau Lagoons, are quite distinctive, both physically and ecologically, from the rest of the coastal marine area. They are also the focus of existing issues and conflicts. Reference to the Wairau Lagoon includes the Wairau and Opawa River areas, the Estuary, and Chandlers, Upper and Big Lagoons. The land administered by the Department of Conservation is a Government Purpose Reserve (Wetland Management), with the former wildlife refuge over the Big Lagoon having been revoked. The reserve area also includes many areas below MLWS, as title includes the sea bed throughout much of the lagoons area. This area is the only remaining low-lying wetland. Extensive drainage and channel modification has reduced the extent of the former wetland area.

The Council has two roles in the area of discharges into the Wairau Lagoons. It has a service delivery responsibility (collecting and disposing of Blenheim's sewage effluent which currently involves the exercise of a permit to discharge into the Opawa River which contributes to the Lagoons) and responsibilities for environmental management (including regulation and control of all discharges).

The Wairau Estuary is presently the receiving point for partially treated sewage from Riverlands Industrial Estate and in particular the Primary Producers Co-operative Society (PPCS) Freezing Works and the Montana Winery.

Many land based activities (particularly farming and horticulture) can also have an effect on the water quality of the Lagoons. The main issue appears to be sediment influx from the catchments during storm events and the subsequent siltation of the Lagoons. The objectives, policies and methods contained in this Plan are based on the view that good water quality is a fundamental community expectation. Poor water quality is a threat to public health and enjoyment of the coast.

The New Zealand Coastal Policy Statement notes that clean water is a fundamental community expectation. Poor water quality is a threat to public health and enjoyment of the coast; to industries based on the harvest of coastal resources; and to the survival of coastal ecosystems. This adequately sums up the reasons why many people in Marlborough, especially local iwi and Lagoon users, do not agree with the discharges described above.

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The Marlborough Regional Policy Statement has as its coastal water quality Objective: "That water quality in the coastal marine area be maintained at a level which provides for the sustainable management of the marine ecosystem". More particularly with regard to the above, Policy 5.3.7a states: "Improve coastal water quality where present "point source" discharges from land limits the safe consumption of plants and fish from the water." This policy is particularly relevant to the Wairau Lagoons.

9.3 Objectives and Policies

Objective 1	**Management of the effects of activities so that water quality in the coastal marine area, is maintained or enhanced to a quality, which enables the gathering or cultivating of shellfish for human consumption.**
Policy 1.1	Avoid the introduction of new point source discharges that adversely affect the environment of the coastal marine area.
Policy 1.2	No existing or proposed discharge, after reasonable mixing, (either by itself or in combination with other discharges) should prevent the safe consumption of seafood from the coastal marine area.
Policy 1.3	Avoid contamination of shorelines and marine farms by preventing the discharge of untreated sewage from vessels within 500 metres of the shoreline (MLWS) or 500 metres of a marine farm.
Policy 1.4	Prevent the discharge of non-biodegradable waste anywhere in the coastal marine area (including waste from port activities, vessels, and marine farms).
Policy 1.5	Ensure there is adequate and convenient provision of facilities for the collection and appropriate disposal of litter, sewage and residues from vessel maintenance.
Policy 1.6	The adverse effects on coastal water from sediment or other contaminant discharges will be managed through controls on upstream and land-based activities.
Policy 1.7	Encourage a buffer zone between the coastal marine area and land use activities.
Policy 1.8	Avoid, as far as practicable, then remedy or mitigate the adverse effects of discharges in the coastal marine area.
Policy 1.9	Avoid the discharge of untreated wastewater to the coastal marine area unless it better meets the purpose of the Act than disposal to land and there has been consultation with tangata whenua and the community.

The Marlborough Regional Policy Statement identifies Shellfish Gathering as set out in the Third Schedule to the Act as the water quality standard which is generally sought for Marlborough coastal marine waters. Objective 1 carries this over as the general aim for coastal water quality under this Plan. In doing this it is important to acknowledge that present water quality in a number of areas is degraded to a state where this is not achievable in the immediate future.

The water quality standard is the minimum needed to achieve Objective 5.3.2 of the Marlborough Regional Policy Statement, "that water quality in the coastal marine area be maintained at a level which provides for the sustainable management of the marine ecosystems". Shellfish are a good water quality indicator species because of their filter feeding characteristics and their accumulation and harbouring of contaminants. The policies identified work to achieve the standard set by Objective 1. Discharges of contaminants from a point source to the coastal marine area have the potential to significantly affect coastal water. In particular, human sewage, even when treated, carries with it a greater potential for the transmission of disease than any other contaminant. Its discharge to water is also intolerable to Maori, therefore there is a necessity for stringent control over this.

Some consideration over marine-based effects on water quality is needed under this Plan, but the majority of control comes from regulations under Sections 15A, 15B and 15C of the Act and the Maritime Transport Act 1994.

Run-off from land is possibly the most pervasive form of pollution in the Wairau/Awatere Plan area. The Plan acknowledges this both above and throughout the Plan. Control is needed at the source of the problem, namely on land.

9.4 Methods of Implementation

Rules	Rules will be used to manage new point source discharges into the coastal marine area, or that affect the coastal marine area. Existing or proposed discharges will be assessed as a Discretionary Activity where consent will only be granted subject to an upgrading of the discharges to shellfish gathering standards.
Standards	The Council will adopt accepted national water quality standards such as the ANZECC Guidelines. The Council has adopted an SG Water Quality Classification for the coastal marine area (see Appendix J - Volume Two).
Education	The Council will prepare guidelines on riparian management and land management generally to encourage voluntary improvements in sediment discharge.
Enforcement	The Council will initiate a programme to ensure that unlawful discharges in the coastal marine area are discontinued.
Support	The Council will in conjunction with interested persons/organisations, organise or support beach clean up operations as required.
National/Other Controls	The Council will implement national controls pursuant to Sections 15A - C of the Act in relation to discharges from ships. In accordance with the Maritime Transport Act, the Council will implement a Tier II Oil Spill Contingency Plan to mitigate the adverse effects of oil pollution in the coastal marine area.
Monitoring	The Council will undertake a comprehensive coastal water quality monitoring programme in conjunction with other relevant agencies that involves: (a) State of the environment monitoring including:

- Near shore coastal water quality;
- Estuarine water quality;
- Bathing beach water quality with a particular emphasis on pathogens that pose a threat to public health.

(b) Impact monitoring to assess the effects of authorised and unauthorised discharges of contaminants on coastal water quality and the benthic environment.

(c) Compliance monitoring to ensure that all coastal permit holders involved in the discharge of contaminants to water meet the conditions of their permits.

(d) Record keeping including:

- State of the environment, impact and compliance monitoring information;
- Requests for information from iwi, other agencies and the public;
- The number of notified and non-notified coastal permits applied for and the number granted and declined in each category; and
- Impact of adjacent land uses on water quality.

(e) Reporting to the Council on a regular basis the results of the above state of the environment, impact and compliance monitoring activities.

A number of methods are included to implement the objective and policies outlined above. It is the implementation of the rules, which is likely to be the most effective means of achieving the level of water quality sought and the sustainable management of coastal water.

9.5 Issue

The protection of indigenous habitats, ecosystems and areas of significant conservation value.

The sandy and gravel beaches generally have a very limited wildlife diversity normally comprised of various crustaceans, algae, skinks, geckoes, and insects. The rock outcrops and platforms around and south of Cape Campbell are home to kelps, algaes, limpets, barnacles, crabs, catseyes, paua, crayfish, periwinkles and mussels.

Offshore crayfish, surfclams, scallops, horse mussels, butterfish, moki, cod, snapper, Hectors Dolphins, kahawai and terakihi are all present. Both the Chancet Rocks and the Needles are home to fur seals and penguins.

The Wairau Lagoons are an important nursery for many fish species and also support a numerous and varied bird population including Royal Spoonbills, Banded Dotterals, Black Stilts, Wrybills and various waterfowls.

The following areas have recognised ecological, historical, scientific and conservation values:

Wairau Lagoons

The Wairau Lagoons are of national and possibly international wildlife significance with many birds using the lagoons as a stopover site in their migration. The Lagoons are also an important breeding and nursery ground for many fish species found in Cloudy Bay. Any changes in the physical processes, water quality, water temperature, clarity, colour, or salinity of the lagoons may have a major adverse impact on the ecology of the Lagoons which leads to a reduction in its recreational and visual qualities. The Lagoons also have a very high spiritual value for the local tangata whenua. This area also has both Maori and European historical significance. The Lagoons have a high recreational value for various activities.

The Boulder Bank

The Boulder Bank is a nationally important landform and has extremely high historical and Maori spiritual value. The Bank acts as a buffer during storm events and protects the Wairau Lagoons area from waves and marine inundation. The Bank could also act as a buffer in the event of sea-level rise.

Station Road

There is an historic cable station (established after Whites Bay cable station) located at the end of Station Road.

Muritai Scientific Reserve

Muritai Scientific Reserve is of national importance. Located approximately 5 km south of the Awatere River mouth the reserve covers 4.6 hectares and comprises the coastal cliffs behind the foredunes. This is the only site where the rare native broom Chordospartium muritai is found naturally. The actual beach is of a pea gravel composition.

Lake Grassmere

Lake Grassmere has national importance as a stop over site for migratory birds although it is not located within the coastal marine area**.**

Shingle beaches near Lake Grassmere and Marfells Beach

The shingle beaches near Lake Grassmere and Marfells Beach are of national importance. The beaches act as a natural buffer for Lake Grassmere during storm events. Marfells Beach also has a moderately high recreational and landscape/seascape value.

Cape Campbell Kelp Beds

These kelp beds (Macrocystis pyrifera) are the largest in the region and are believed to have regional significance although a detailed study of the beds and associated fish life has not been undertaken.

Cape Campbell to Mirza Creek

This area is the least modified coastal environment section along the East Marlborough Coast. It has significant conservation value due to its spectacular scenery and unique geological formations. Though the pea gravel beaches are common to this area they are relatively rare internationally. The Chancet Rocks and the Needles have international significance because of their unique sponge fossil composition. These limestone outcrops are also colonised by the New Zealand Fur Seal.

Mirza Creek is of regional significance. The native pingao and banded dotterals near Mirza Creek above mean high water springs line are also significant features.

Hectors Dolphins

Cloudy and Clifford Bays are of national importance as habitat for vulnerable Hectors Dolphins. The dolphins are a rare and endangered species and can be regarded as having national significance.

Other coastal plant communities

There are a number of ecologically significant coastal herbfields, shrublands, dunelands and bluff communities known to occur along the east Marlborough coastline. These communities rely on their coastal location for their survival, are a characteristic of the Marlborough coastline, and are prone to modification through direct disturbance such as fire, quarrying, and minor land disturbance activities, as well as invasion by weeds and pests.

Refer to Appendix D, Volume Two, for areas of Significant Conservation Value.

9.6 Objectives and Policies

Objective 1	**To protect habitats, ecosystems and areas of significant conservation value within the coastal environment from the adverse effects of subdivision, use, development and discharges.**
Policy 1.1	Identify areas of significant ecological value and areas of iwi cultural significance.
Policy 1.2	Avoid, as far as practicable, the adverse effects of coastal land and water use on coastal areas of significant conservation value.
Policy 1.3	Promote public understanding of the importance of protecting areas of significant conservation value from the adverse effects of activities because of their intrinsic, conservation, social, economic, scientific and education worth, and for their contribution to the natural character of the East Marlborough Coast.
Policy 1.4	Maintain and where practicable enhance habitats, ecosystems and areas of significant conservation value.

Many of the natural values of the area have, over time, been seriously affected by change. These values are still under threat from introduced plants and animals, inappropriate human activities and nearby land uses which affect water quality.

9.7 Methods of Implementation

Schedule	Areas of significant conservation value have been scheduled in Appendix D of Volume Two and shown on the planning maps.
Rules	Rules require consideration of the values associated with indigenous habitat ecosystems and areas of significant conservation value, particularly those scheduled in Appendix D.
Education	Increasing the public's knowledge and understanding of the occurrence of areas of significant conservation value to lead to a greater appreciation of those values.
Advocate	The setting up of marine reserves in appropriate locations.

The rules relating to areas identified as having significant areas of conservation value will work towards protecting the ecological and conservation values identified in the Plan.

Education will improve the community's understanding and respect for ecological values.

9.8 Issue

The maintenance and enhancement of public access to the coastal environment.

The East Marlborough Coast has a relatively low usage compared to the neighbouring Marlborough Sounds. This is primarily due to its wild rugged nature and in some cases a lack of access (eg; south of Marfells Beach).

The primary use of the coast is for recreation where the most popular areas are the Wairau Lagoons and Bar, Marfells Beach and Ward Beach.

The open coastline between Rarangi and Cape Campbell is used for surfcasting and kontiki fishing, with the river mouth being popular for whitebaiting. Marfells Beach attracts both daytrippers and overnight campers. The beach is used for pleasure-boat launching and as a starting point for walks to Cape Campbell.

The Wairau Lagoons are visited by birdwatchers, walkers and school trips as well as duckshooters in the non-reserve areas. A walking track with boardwalks has been constructed and goes out to the wreck of the Waverly. This walkway is estimated to be used by 1000 people per year.

South of Cape Campbell the scenery and wilderness values of the area attract many hikers some of whom may collect interesting stones or washed up paua shells. During the occasional calm periods recreational divers go in search of paua and crayfish. Ward Beach is used for boat launching, access to the coastline and whitebaiting. The Waima River mouth is popular for informal camping but has limited appeal for fishing and swimming.

The offshore area is not used to a great extent for recreational fishing or for diving.

Regarding access generally, the East Marlborough Coast is unique in that much of the area immediately landward of mean high water spring is reserve land owned and administered by the Department of Conservation. Further information is set out in Chapter 8.0 Public Access.

The New Zealand Coastal Policy Statement notes that provision shall be made for the maintenance of public access to and along the coastal marine area. However, access can be restricted to protect any significant conservation values, protect peoples health and safety, protect security and to protect Maori conservation values.

9.9 Objectives and Policies

Objective 1	**That public access to and along the coastal marine area be maintained and enhanced.**
Policy 1.1	Adverse effects on public access caused by the erection of structures, marine farms, works or activities, in or along the coastal marine area should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects, to the extent practicable.
Policy 1.2	Public access to the coastal marine area will be enhanced wherever possible.
Policy 1.3	Assess the need for, at the time of subdivision and reclamation, esplanade reserves in accordance with the criteria set out in Volume Two (subdivision requirements) and statutory requirements under the Act.
Policy 1.4	Purchase foreshore reserves as and when funding permits.
Policy 1.5	Acknowledge that public access to and along the coastal marine area may be restricted to: • Provide for the operational requirements of any lawful structure or activity; • Protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna; • Protect Maori cultural values; • Protect public health and safety; • Ensure a level of security consistent with the purpose of a resource consent; or • In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access.

Public access to and along the foreshore is an important resource in the East Marlborough Coast. New structures should be able to demonstrate that public access and recreation opportunities have been maintained and enhanced wherever practicable.

The maintenance and creation of public access to the coast and within the Wairau Lagoons Area is a high priority subject to the preservation of ecological and conservation values.

9.10 Methods of Implementation

Rules	Planning maps and rules identify or indicate where access to and along the coastline is generally allowed by incorporating esplanade reserves into the Conservation Zone.
Subdivision	The reserves policy, contained within Chapter 23, and criteria set out in Volume Two (subdivision requirements) establish the circumstances under which esplanade reserves will be acquired.
Guidelines	Provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.
Research	The Council will carry out research to assess the need for enhancement of physical access to and along the coastal marine area.
Conservation Guidelines/Plans	Rely on guidelines prepared by the Conservation Board and the Department of Conservation in respect of access requirements.

9.11 Issue

The potential effects of marine farms on the natural character of the East Marlborough Coast.

The East Coast has potential for marine farming of paua, scallop, crayfish, mussel, oyster, surfclams, seaweed and kelp. That potential can be expected to be made use of as demand for space in the Marlborough Sounds increases.

The prevailing weather and exposed sea conditions make the area difficult for conventional marine farming at the moment but the marine farming industry is currently investigating new technologies and structures which will withstand those conditions. It is hard to predict with any certainty which type of farming will be promoted in the area in the future and the type of structures they will require. However many marine farming operations will introduce issues associated with exclusive occupation rights and the building of structures on the seabed.

Though regarded as a 'clean' activity marine farming can have adverse environmental impacts if not managed or developed properly. Where marine farming has occurred around the country the following concerns have typically been raised:

- Exclusive occupation rights which restrict public access;
- The visual impact of structures above the water level;
- The abandonment of farms (and the visual effects of structures that are left);
- Siltation of the sea floor and accumulation of toxins around marine farms;
- The impact of farms on traditional recreational and fishing areas;
- The impact of marine farms on local ecology; and
- Cumulative effects.

9.12 Objectives and Policies

Objective 1	**To protect the natural character of the East Marlborough Coast from the adverse effects of marine farming.**
Policy 1.1	Exclude marine farming activities from areas of high ecological or conservation values.
Policy 1.2	Scrutinise applications for marine farming activities with respect to their effects (including adverse cumulative effects), on ecosystems, habitats, recreational values and landscape values.
Policy 1.3	Avoid the allocation of coastal space for marine farming where there is a significant adverse effect on: • Iwi values; • Outstanding landscapes; • Areas of ecological value; • Navigation and safety; • Recreation users; • Marine habitat sustainability; and/or • Other adjoining activities including those on land.

The objective and policies seek to provide guidance and control on the individual and cumulative adverse effects of marine farms. The values associated with the coastal marine area may be easily threatened without some consideration of the effects of occupying and using coastal space for marine farms.

9.13 Methods of Implementation

Rules	Marine farms will be subjected to assessment criteria designed to protect a wide range of values in the coastal marine area.

9.14 Issue

Adverse effects from inappropriate occupation and structures in the coastal marine area.

The only structures in the coastal marine area along the open coast in this plan area occur adjacent to Lake Grassmere. These structures comprise the old coastal water intake pipeline and protection structure (now used for stormwater discharge), the main coastal water intake pipeline and support structure (pipeline jetty) and, coastal water intake pipeline.

The main restriction on building foreshore structures is the wild nature of the coastline. Any foreshore or seabed construction would need to be extremely large and strong to be able to withstand the continual high energy forces of the waves, currents and sediment movement.

Such structures can alter both the physical processes and ecology of the coastal marine area. Therefore any proposals will need to consider the impact of their

structure on long and offshore sediment movement and wave refraction in terms of possible erosion and accretion, as well as on the local ecology.

9.15 Objectives and Policies

Objective 1	**To avoid as far as practicable, then remedy or mitigate adverse effects from activities and/or occupation of space and the erection of structures in the coastal marine area.**
Policy 1.1	To manage the adverse effects of occupation of space, structures and activities in the CMA in respect of their impact on the following: • Cultural and iwi values; • The natural character of the coastal environment; • Coastal processes; • Heritage and amenity values; • Recreation values; • Public health, safety (including navigational safety) and enjoyment; • Water quality; • Conservation and ecological values; • Marine habitats and sustainability; and • Landscape, seascape and aesthetic values.
Policy 1.2	Exclusive occupation of the coastal marine area or occupation which effectively excludes the public will only be allowed to the extent necessary to carry out the activity.
Policy 1.3	Consider the visual effects of structures and incorporate measures to avoid, remedy or mitigate any adverse effects.
Policy 1.4	Avoid the proliferation of foreshore structures.
Policy 1.5	The erection of structures on areas of specified conservation and ecological values specified in Appendix D Volume Two should be designed to withstand coastal processes and have regard to management plans or Guidelines where these are in place.

The Plan seeks to protect the East Marlborough Coast from any adverse effects of activities, occupation and structures, particularly those which would detract from significant ecological and conservation values. It also seeks to provide protection from the effects of poorly designed and/or constructed foreshore and seabed structures.

9.16 Methods of Implementation

Rules	The Plan will allow the erection of structures as a Permitted Activity where they have little environmental effect (eg mai mais).
Information	The Council will provide information on the difficulties of building structures in this area. Structures and activities within, and occupation of the foreshore may also be subject to a Department of Conservation Management Plan where such a plan exists.

9.17 Issue

Not opening the Wairau and Diversion River Mouth Bars has adverse effects.

The Wairau River mouth bar is a natural feature that has a dominating effect on water levels in the Wairau estuary, the Wairau Lagoons, the lower Wairau to upstream of Ferry bridge, and the lower Opawa. This is particularly at normal and low flows, but flood flows are also affected.

The bar is formed by a combination of marine forces, tidal flows into the Wairau Lagoons and river flows from the lower Wairau and to a lesser extent the lower Opawa.

The marine storm wave forces are very important. In times past they formed a bar typically extending a kilometre to the north. When such a bar formed there would be significant water friction loss down this extra distance of coarse gravel bed channel. In these situations the water level in the whole lower Wairau to upstream of Ferry Bridge is kept at virtual high tide levels with little or no tidal variation.

This has a significant effect on the lower Wairau, lower Opawa and Wairau Lagoons. With this partially closed bar the water there may stay almost completely devoid of saline water, or conversely stay with an extensive saline wedge. This deleteriously affects the ecological environment of the area.

Gravity drainage of the extensive areas of flat lower plains into the lower Wairau is also prevented and expensive drainage pumping is then required.

During flood flows, flood levels are higher upstream and can lead to stopbank overtopping until the 2-3 m high bar is overtopped and scoured out by the flood flow.

On the other hand a directly open bar mouth is of obvious benefit. With a direct open mouth there is twice daily flushing of saline water, consistent tidal water level variation in the lower Opawa and lower Wairau and good gravity drainage.

Boat access across the bar is also much better with a direct mouth outlet and was a concern of Harbour authorities when the Wairau and lower Opawa were important for shipping.

The Wairau diversion bar has on a minor scale the problems that the lower Wairau mouth has.

9.18 Objectives and Policies

Objective 1	**To manage the Wairau River and Wairau Diversion mouth entries as hydraulically efficient openings to the sea for tidal flushing flows and river flows.**
Policy 1.1	To maintain direct openings of the mouths of the Wairau River and Wairau Diversion.

9.19 Methods of Implementation

Council Activities	To maintain existing river mouth rock level guide banks for the Wairau River and Diversion mouths, and extend them seawards as necessary. To excavate pilot cuts through the beach bar as and where necessary for a direct mouth of the Wairau River and/or Diversion.
Monitoring	To maintain water level recorders which measure the tidal variation in the Lower Wairau River and Diversion and hence hydraulic efficiency of the mouths. To carry out surveys of salinity, tidal flushing flows, flow circulation, water quality and how these may be affected by the state of the Bar and to determine the effects on ecological values.
Rules	Rules will be used to specify the manner in which pilot cut opening of the bar is carried out and the manner in which the rock guide banks may be extended.

A hydraulically efficient river mouth has environmental, drainage, navigation and flood control benefits.

These combined tidal flushing flows and river flows can be concentrated by a guide bank to inhibit the development of the bar. At least 3 such guide banks or jetties of increasing effectiveness have been built by river or harbour authorities over the last 85 years. These guide banks have been very effective, and their presence controlling the bar is now generally considered the "status quo" situation.

The manner in which the river mouth is kept open and timing of such works to achieve this needs consideration of a range of factors and their monitoring.

9.20 Issue

Disturbance and alteration of the foreshore and seabed.

Reclamations

No reclamations other than a portion of the Wairau Bar have been undertaken along the East Marlborough Coast open coastline to date.

Reclamations, like foreshore structures, can adversely alter physical processes along the coastline and destroy valuable habitats. It is important to locate and design reclamations so that environmental effects are avoided, remedied or mitigated.

Sand and Shingle Extraction

In the past sand and shingle extraction has not been undertaken within the coastal marine area of East Marlborough Coast. Some sand mining occurred above mean high water springs near the Waima (Ure) River up until 1990. Sand deposits near the Waima (Ure) River are estimated at 6,750,000 tonnes and are a potentially valuable resource. The three main reasons for the lack of interest in extraction are the sea conditions, lack of anchorage and the plentiful supply of shingle, gravel and sand elsewhere at inland sites or in nearby rivers.

Sand and shingle extraction can have adverse effects on the coastal environment if not managed properly. Extraction can result in sediment starvation further along the coast resulting in localised erosion especially during storm events. Along Cloudy Bay the freshwater Wairau aquifer is close to the surface and could be easily pierced. Any extractions will need to be carefully monitored to assess long term impacts and to identify any unforeseen effects on the environment.

Dredging and Deposition

Dredging generally has an adverse effect on the immediate ecosystem and depending on the distance any suspended sediment travels, may have an adverse effect on a much larger area.

The resulting dredgings can be disposed of on land, used for reclamation or dumped at sea. Recent environmental thinking tends to support disposal of dredgings at sea, or use in approved reclamations, however areas with non-sensitive habitats need to be selected to avoid long-term ecological damage.

Oil Pollution

Oil spills from major accidents are potentially the most visual form of coastal pollution, and the effects on wildlife around the world have been well documented. Along the East Marlborough Coast the risk from oil spills is presently very low. However the gravel beaches of the East Marlborough Coast would be sensitive to oil spills because of their rapid infiltration rate.

9.21 Objectives and Policies

Objective 1	**Protection of the coastal environment from the adverse effects of activities that disturb or alter the foreshore or seabed.**
Policy 1.1	In assessing applications for any reclamation, drainage, or impoundment within the coastal marine area the Council shall consider: (a) Alternative methods or land-based sites (above MHWS) for the activity for which the reclamation, drainage or impoundment is required, and whether this alternative is practicable; and

(b) Efficient use of coastal space is made by using the minimum area of the coastal marine area necessary for the reclamation, drainage or impoundment; and

(c) The finished appearance of the reclaimed or drained area, or the impoundment, including its size, shape and the materials used is as far as practicable compatible with the environment in which it is located.

Policy 1.2 Ensure that material used to create and form any reclamation or impoundment does not include contaminants which have the potential to adversely affect the coastal marine area.

Policy 1.3 Any proposal for dredging and disposal within the coastal marine area shall demonstrate:

(a) The justification for dredging;

(b) An appropriate disposal method and disposal site; and

(c) The measures undertaken to avoid, remedy or mitigate adverse effects on marine habitats, recreation values, adjacent activities or users, water quality and other adverse environmental effects.

Policy 1.4 Avoid, as far as practicable, then remedy or mitigate the adverse effects of activities that disturb or alter the foreshore and/or seabed on any of the following:

(a) Conservation and ecological values;

(b) Cultural and iwi values;

(c) Heritage and amenity values;

(d) Landscape, seascape and aesthetic values;

(e) Marine habitats and sustainability;

(f) Natural character of the coastal environment;

(g) Navigational safety;

(h) Other activities, including those on land;

(i) Public access to and along the coastal marine area;

(j) Public health and safety;

(k) Recreation values; and

(l) Water quality.

Some alteration to the foreshore and seabed may be necessary to enable the continuation of some coastal marine activities. The policies seek to provide a guide for their continuation while controlling the potentially significant adverse effects which can arise from any alteration to the foreshore or seabed.

9.22 Methods of Implementation

Rules	In general, rules provide for certain minor alterations to the foreshore and seabed as Permitted Activities subject to specific performance standards. Most alterations however, will be assessed on their merits, as a Discretionary Activity.
Assessment Criteria	The assessment criteria for Discretionary Activities involving foreshore and seabed alterations, enable the effects of the alteration on the coastal marine area to be assessed. An assessment of the effect of the proposed alteration on Maori cultural values, natural character, landscape and ecological values will also be required.

The use of rules and associated assessment criteria, and performance standards where minor alterations are permitted, allows for control over the adverse effects of alterations to the foreshore and seabed. It also enables the numerous variabilities which exist in assessing the effects of the various types of alterations to the foreshore and seabed, to be taken into account.

9.23 Issue

The potential effects from the construction and operation of a new ferry terminal in the vicinity of Marfells Beach, Clifford Bay.

Consent has been granted by the Council for the development of a site in the vicinity of Marfells Beach, Clifford Bay as an inter-island ferry terminal which will include the construction of a reclamation, breakwater structures, port facilities, buildings and associated infrastructure required for the operation of a new safe port. The proposed port development will take place both within the coastal marine area and on the land. The proposal is of considerable importance to the national transportation network as well as to local and regional interests. The nature of the project will give rise to a number of environmental effects, both during and after construction. Particular matters which need to be considered include the purpose and design of structures, navigation and safety, public access, recreation activities, visual and aesthetic issues, iwi issues, the effect on coastal and other natural processes and short-term construction effects.

9.24 Objectives and Policies

Objective 1	**To provide for the social and economic well-being of the district and for nationally significant transport linkages through the development and the safe and efficient operation of an inter island ferry terminal in the vicinity of Marfells Beach Road, Clifford Bay.**
Objective 2	**To avoid, remedy or mitigate adverse effects from the construction and operation of the ferry terminal including associated activities, erection of structures and occupation of space in the coastal marine area.**

Policy 1.1	Provide for the development and operation of the ferry terminal for the benefit of present and future generations.
Policy 1.2	Avoid, remedy or mitigate adverse effects of the ferry terminal for the benefit of future generations.
Policy 1.3	Avoid, as far as practicable, the adverse effects of any reclamation, foreshore and seabed disturbance (including deposition), berth structures, ferry terminal, terminal operations, and from land infrastructure and associated facilities on the following: • Ecosystems both generally and more particularly within areas of significant conservation value; • On public access to and along the coastal marine area; • Water quality (including effects from stormwater and other discharges to the coastal marine area); and • Existing recreational use of the area. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects to the extent practicable.
Policy 1.4	Recognise that public access may be restricted in some areas to provide for public health, safety or security requirements relating to the operation of the ferry terminal.
Policy 1.5	Minimise the total area of structures or occupation of the coastal marine area by those parts of the ferry terminal which exclude the public.
Policy 1.6	Avoid, remedy or mitigate adverse effects caused by dredging, disposal of dredgings and beach management activities.
Policy 1.7	Ensure appropriate construction methods are adopted to address the adverse effects on the matters listed in Policy 1.3.
Policy 1.8	Manage traffic and other effects of increased visitor numbers to the area.
Policy 1.9	Avoid, remedy or mitigate adverse effects of construction and infra-structure activities including roads, railways and causeways and the traffic generated by construction activities and the construction workforce.

9.25 Methods of Implementation

Zoning	The plan includes a Port Zone (located on land and in the Coastal Marine area) which provides for the activities and structures associated with the ferry terminal and occupation of the coastal marine area, subject to relevant performance standards. (The zone is only intended to provide for the primary activities and structures of the port.) Significant new structures, such as reclamations and breakwaters are provided for as Discretionary Activities.

Other	Structures and activities within, and occupation of the seabed, foreshore and land in the coastal environment may also be subject to a Department of Conservation Management Plan where such plan exists.

9.26 Issue

Allocation of the right to apply for a coastal permit for marine farming in Aquaculture Management Areas (AMAs) in a manner that is effective, efficient and fair to all parties involved.

As explained in Section 9.1.2 of the Plan, there are three different processes for Plan Changes to include new AMAs in the Plan. With a Council-initiated Plan Change, authorisations are allocated by public tender. Where an AMA has been created through the IPPC process, authorisations are allocated to the person or organisation that requested the Plan Change. These methods are considered to be effective, efficient and fair to the parties involved.

Under the standard Private Plan Change process, any person or organisation can request a change to the Plan to establish an AMA in any part of the coastal marine area. These Private Plan Changes are processed in terms of Schedules 1, Part 2 and 1A of the Act. The time, resources and costs involved with evaluating new AMAs and providing for them in the Plan through a Plan Change process are considerable. With a standard Private Plan Change, these costs will be borne by the applicant. The Council recognises that people or organisations are not likely to make requests for new areas, unless they have some certainty that they will receive the right to apply for a coastal permit for marine farming should the Plan Change succeed. While the Act states as a default that authorisations should be allocated by public tender, the Council acknowledges that public tendering does not give the Plan Change applicant sufficient certainty that they will receive the right to apply for a coastal permit for marine farming within that new AMA.

In order to enable effective, efficient and fair use of a standard Private Plan Change approach for the consideration of new AMAs, the Council considers that the Plan should specify an alternative method of allocating the right to apply for coastal permits for marine farming. The alternative allocation method adopted by the plan is considered to be fair and provide certainty to the Plan Change applicant.

In addition, the public tendering process assumes multiple applications for authorisation of allocations. Public notification, calling for authorisation applicants, is the default process in the Act. In circumstances where there can only be one applicant (the Private Plan Change applicant), this process of public notification for authorisations is considered unnecessarily time-consuming and costly. The Plan, therefore, adopts an alternative method which provides the right to apply for coastal permits for marine farming directly to the operative Private Plan Change applicant. This method is considered to be more efficient and avoids unnecessary delays in the process.

9.27 Objectives and Policies

Objective 1	**An effective, efficient and fair process for the allocation of the right to apply for coastal permits for marine farming in Aquaculture Management Areas.**
Policy 1.1	Allocation of authorisations by way of public tendering for coastal space in AMAs created through Council Plan Changes.
Policy 1.2	Processes for obtaining the right to apply for coastal permits in AMAs that are effective, efficient and fair, and provide sufficient certainty for marine farmers to enable proposals for new AMAs and marine farms to be put forward for evaluation through standard and Council Invited Private Plan Changes.
Policy 1.3	Allocation of new coastal space to iwi in accordance with the procedures established through the Aquaculture Reform 2004.

9.28 Methods of Implementation

Zoning	Aquaculture management areas (AMAs) will be included in the Plan as Aquaculture Management Area Zones (AMA Zones). Existing, lawfully established marine farms are deemed to be AMAs. All new marine farms must be established in an AMA Zone following the granting of the necessary resource consents for coastal permits. At some later date, Council may decide to propose new AMA Zones in the Plan by way of Council-initiated Plan Change or I P P C processes, as priorities and resources for Council determine. New AMA Zones may be established in the Plan by way of requests for Private Plan Changes. AMA Zones will be managed for aquaculture activities (marine farming).
Right to apply for coastal permits for marine farming	Authorisations for available space within AMA Zones, which have been included in the Plan as a result of a Council-initiated Plan Change, will be allocated by way of public tender. An alternative method is specified in the Plan for obtaining the right to apply for available space within AMA Zones which have been included in the Plan as a result of a request for a standard Private Plan Change. In these circumstances, the right to apply for available space within AMA Zones will be offered to the first person whose Private Plan Change was complete and successfully resulted in an operative AMA Zone for that area of coastal marine area. Where the right to apply for available space or the resulting coastal permit for marine farming is not taken up or lapses, allocation will be by way of public tender.

9.29 Anticipated Environmental Results

Implementation of the policies and methods relating to the coastal marine issues will result in:

- Appropriate activities able to be undertaken within the coastal marine area;
- The recreational values of the coastal marine area maintained and enhanced;
- Management of the Wairau River Mouth and Wairau Diversion Mouth in a manner that ensures the integrity of the flood protection system while avoiding adverse effects on navigation, recreation and the significant conservation and cultural values of the Wairau Lagoons;
- Maintenance and enhancement of public access to and along the East Marlborough Coast, while accepting that certain restrictions may be required;
- Protection of the coastal environment and significant conservation values from inappropriate sand and shingle extraction, and other foreshore disturbance/alteration, including dredging, deposition of material and reclamation; and
- The development and operation of a ferry terminal and associated activities in the vicinity of Marfells Beach Road, Clifford Bay in a manner which provides for the development of the local, regional and national transport network while at the same time avoiding, remedying or mitigating the effects on the environment.

10.0 Natural Character

10.1 Introduction

The Resource Management Act 1991 (the Act) (Section 6(a)) declares as a matter of national importance, the preservation of the natural character of the coastal environment (which includes the coastal marine area), wetlands, lakes, rivers and their margins, and the protection of them from inappropriate subdivision, use and development.

Chapter One of the New Zealand Coastal Policy Statement (NZCPS) expresses ways in which the natural character of the coastal environment can be preserved. It links natural character preservation with a number of other protection matters. An example is Policy 1.1.3(a) of the NZCPS which introduces the protection of "... landscapes, seascapes and landforms ...". While the protection of outstanding landscapes is a matter of national importance in its own right under Section 6(b) of the Act, it is also addressed in the preservation of natural character, the combination of these matters assist in the promotion of sustainable management of natural and physical resources.

Natural character can generally be described as being those characteristics (qualities and features) of a particular environment. The particular environment in the case of this chapter of the Plan, is the coastal environment and freshwater environments or wetlands, lakes and rivers and their margins.

The natural character of the coastal environment and freshwater bodies is comprised of a number of key elements:

- Coastal or freshwater landforms;
- Indigenous flora and fauna, and their habitats;
- Water and water quality, including marine and freshwater ecosystems;
- Scenic or landscape values;
- Cultural heritage values; and
- Habitat of trout and salmon.

All parts of the East Marlborough Coast from Rarangi to Willawa Point have some or all of these qualities and to that extent, all have some degree of natural character. One management issue to be addressed is the location of the inland boundary of the coastal environment. In some cases this will be clear in others it will be a matter for interpretation.

The preservation of natural character and protection from inappropriate subdivision, use and development will generally be achieved by a process which addresses those identified components of natural character.

The process used for addressing natural character involved the identification of qualities or components of natural character (above) and determining ways in which the Plan specifically manages these. A number of the policies and methods of implementation for preserving natural character are contained within other sections of this Plan.

Coastal or Freshwater Landforms

Examples of landform include tidal estuaries, dune formations, coastal cliffs and river terraces. The Plan addresses adverse impacts on landform by incorporating rules on land disturbance and alteration to the foreshore and seabed. Refer to Chapter 14: Land Disturbance, and Chapter 9: Coastal Marine.

Flora and Fauna and their Habitats

Important vegetation and fauna habitats are incorporated into 'areas of significant ecological value' and policies to protect these are provided in Chapter 4 Flora and Fauna and their Habitats. In addition for the Coastal Marine Area the Department of Conservation have identified areas of special conservation value which include areas of significant ecological value. Coastal Marine Area ecosystems, and ecosystems in the coastal environment, are described in Chapter 9: Coastal Marine.

Water and Water Quality

Water management issues and water quality are addressed in the Water and Coastal Marine sections of the Plan. Refer to Chapter 6 Fresh Water. The achievement of the policies in these sections and the implementation of the relevant rules in Volume Two will also contribute to the preservation of natural character.

Scenic or Landscape Values

Scenic values are essentially people's appreciation of the visual qualities of a particular area. Protection of visual qualities is provided in the Landscape section (Chapter 5) and throughout a number of other sections of the Plan (eg Rural and Urban Environments).

Cultural Heritage Values

Cultural heritage values include historic places of early settlement and sites of significance to iwi. Policies to recognise and protect the values of tangata whenua and heritage values are contained within Chapters 2 and 3 and rules to protect specific heritage resources are contained in Volume Two of the Plan.

The protection of the individual elements of natural character will assist in preserving the natural character of the coastal and freshwater environments and protecting them from inappropriate subdivision, use and development.

In addition to protecting those elements which contribute to natural character, it is important to address the cumulative effects of subdivision, use and development. The irreversible adverse effects on natural character of some types of subdivision, use and development also need to be addressed. In such cases remedying or mitigating the change brought about by such activity can be complex.

Both of these issues create difficulties for ensuring the protection of natural character, and can only be assessed on a case by case basis. The policies which follow allow for this.

10.2 Objectives and Policies

Objective 1	**The preservation of the natural character of the coastal environment, wetlands, lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development.**
Policy 1.1	Discourage subdivision, use or development within those areas of the coastal environment and freshwater bodies which are predominantly in their natural state and have natural character which has not been compromised.
Policy 1.2	Appropriate use and development in the coastal environment will be encouraged in areas where: • The natural character has already been compromised; and • Where such use and development does not contribute to sprawling or sporadic development.
Policy 1.3	To consider the effects on those qualities, elements and features which contribute to natural character, including: (a) Coastal and freshwater landforms; (b) Indigenous flora and fauna, and their habitats; (c) Water and water quality; (d) Scenic or landscape values; (e) Cultural heritage values, including historic places, sites of early settlements and sites of significance to iwi; (f) Habitat of trout and salmon; (g) Natural movements of sediments, water, air and biota; (h) Natural productivity; and (i) other dynamic processes.
Policy 1.4	In assessing the actual or potential effects of subdivision, use or development on natural character of the coastal and freshwater environments, particular regard shall be had to the policies in Chapters 3, 4, 5, 6, 9, 13 in recognition of the components of natural character.
Policy 1.5	Promote an integrated approach to the preservation of the natural character of the coastal and freshwater environments of the Wairau/Awatere area.
Policy 1.6	In assessing the appropriateness of subdivision, use or development in coastal and freshwater environments, particular regard shall be given to the ability to restore or rehabilitate natural character in the area subject to the proposal.

Policy 1.7	To adopt a precautionary approach in making decisions where the effects on the natural character of the coastal environment, wetlands lakes and rivers (and their margins) are unknown.
Policy 1.8	To promote the concept of streams, rivers, wetlands and estuaries as ecological corridors to the coast.
Policy 1.9	In ensuring that the cumulative effects of activities in the coastal environment are not adverse to a significant degree, consideration shall be given to: • The additive effect of allowing more of the same or similar activity; • The additive result of allowing more of a particular effect, whether from the same activity or from other activities causing the same or similar effect; and • The composite bundle of effects from all activities that operate in, or that cause effects in the coastal environment.

The above objective and policies seek to support other sections of the Plan in terms of their contribution to natural character and provide an integration mechanism for the management of natural character.

The preservation of the natural character of the coastal environment, wetlands, lakes and rivers (and their margins) and the protection of them from inappropriate subdivision, use and development is a matter of national importance under the Act which must be recognised and provided for in this Plan. The natural character of the East Coast and Wairau/Awatere freshwater bodies comprises those features and qualities which have been created by nature. While it is seen as nationally important to preserve the qualities of natural character, it is not intended that this principle should preclude appropriate subdivision, use and development.

10.3 Methods of Implementation

Rules	Rules have been constructed to ensure that the elements which contribute to natural character in Wairau/Awatere freshwater bodies and the East Marlborough Coast are protected from inappropriate subdivision, use and development. Refer to General Rules and Zone Rules, Volume Two. The establishment of a Conservation Zone and related rules, also contribute to the preservation of natural character.
Assessment Criteria	The provision of assessment criteria for discretionary activities to facilitate the consideration of effects on natural character.
Landscape Character	When issues involving landscape character arise suitably qualified professionals will be retained to give advice

Information	The Council, in liaison with the Department of Conservation, will prepare and maintain a bibliography of published material on the natural and physical resources of the East Marlborough Coast and Wairau/Awatere area.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume 1 of the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

The methods to achieve preservation of natural character in those areas where this is required by the Act, are the general outcome of a number of the rules provided by the Plan. Subdivision, use, or development are usually precursors to major changes to natural character. Controls ensure that these changes are not adverse.

Rules will ensure, as far as is practicable, that subdivision, use and development harmonise with the natural character of the coastal environment and wetlands, lakes and rivers.

10.4 Anticipated Environmental Results

Implementation of the policies and methods relating to natural character will result in:

- The preservation of the natural character of the coastal and freshwater environments; and
- The protection of the elements and features which significantly contribute to the natural character of the coastal environment and wetlands, lakes and rivers and their margins.

11.0 Urban Environments

11.1 Introduction and Issue

Recognising and providing for existing urban environments including patterns of settlement and appropriate new development.

In the past, people have tended to live by choice in urban environments, where they can work and live in close proximity to each other.

The development of urban environments is interrelated with this choice to "live together" and accordingly changes with the changing needs of the population. At the same time, changes in the urban environment affect the people who live in it and choices they make.

Town planning has evolved with the development of the urban environment and now plays an integral role in enabling people to maximise the economic, social and cultural opportunities available to them.

This Plan will supercede previous documents and caters for the continuing development of the urban environment in Blenheim (the main urban centre in Marlborough) the several smaller, more residential areas and rural service centres, and the more remote settlements located within the Plan area.

Urban environments serve a very important function by concentrating and organising urban services. Considerable infrastructure, information and organisation exist in the urban environment. Urban services include sewage disposal, water supply, transport linkages, retail services, community facilities, emergency service activities and information transfer.

Consequently, a considerable level of investment (ie resource) is tied up in the urban environment. The sustainable management of the urban environment resource will ensure its continued and successful existence.

The Need to Sustainably Manage the Urban Resource

In broad management terms it can be seen that the urban environment is clearly the host to many different activities with varying effects. Some of the effects of urban activities are often only observed at a local scale while others are more widespread.

In order to sustain the urban environment resource, some control over these local effects is required. To ensure that the urban environment is a pleasant place for people to live in, and thereby ensuring its continued viability and sustainability, some control over the wider ranging effects will also be necessary.

The Resource Management Act (the Act) provides for a range of tools to be used to manage the urban environment. Among these, the concept of zoning is available as a basic technique of land use control. It is an important and useful planning tool which recognises geographical differences and enables areas with different sensitivities to effects to be identified. Activities with similar effects are able to be grouped together. Any adverse effects can be restricted to a defined area. Zoning provides certainty to land users.

Zoning has been used as the basic technique in this Plan. Three major land use components in the urban environment have been identified, comprising residential, business and industrial. These form the basis of the zoning. Land subdivision is also a

recognised method of land management. This Plan applies the use of subdivision as a tool to assist in the management of the urban land resource and its supporting infrastructure.

To deal with change and depending on the scale of potential effects and the nature of the issues relating to sustainable management of natural and physical resources the Council will employ the tools most appropriate to the circumstances. More particularly, for complex situations such as accommodating the flow on effects to the settlements of Picton, Ward and Seddon that may occur if an inter-island rail and passenger terminal is established in Clifford Bay, the Council will where necessary make changes to the Plan if that development proceeds following a detailed resource study.

11.2 Residential Environments

Enabling people and communities to provide for their residential needs is one of the Council's functions under the Act. However, this can only be done while addressing the needs of future generations, the life-supporting capacity of air, water, soil and ecosystems, and the adverse environmental effects of activities. The Council must also have regard to a number of other matters contained within Part II of the Act, including:

- The efficient use and development of natural and physical resources;
- The maintenance and enhancement of amenity values; and
- The maintenance and enhancement of the quality of the environment.

Residential activities occupy the largest area of the urban environment, so it is important to recognise and provide for these. The Blenheim urban area is the single largest residential area within the Wairau/Awatere Plan area and the Marlborough District.

Other smaller residential areas within the Wairau/Awatere include Renwick, Spring Creek, Grovetown, Tuamarina, Rarangi, Seddon, Ward and Wairau Valley.

Within the urban areas there are large tracts of land such as the Waterlea Racecourse and Lansdowne Park which are currently privately owned recreational facilities. It is expected that in the longer term these may not always be regarded as appropriate locations for these facilities and that the land will ultimately be given over to residential use. Given the size and location of these tracts of land it is expected that any future development of them should be dealt with by way of plan changes. Plan changes would provide the greatest flexibility to determine the appropriate mix of residential, commercial, and recreational zoning. In the interim the land has been given a rural zoning to enable the existing uses to continue.

11.2.1 Issues

The issues identified in relation to the residential environment are:

- The need to plan for and manage the effects of the existing residential environment, infill development and possible future residential expansion;
- The effects of residential and non-residential activities on the residential environment;
- Protecting the character and amenity of residential environments;

- Adequate servicing of residential areas;
- The need to encourage energy efficiency in the residential environment;
- To recognise environmental constraints to development;
- Land use conflict arising at the rural-urban interface; and
- To recognise the potential for conflict between expected rural and residential amenities at sensitive locations on the urban periphery of Blenheim.

These issues are addressed in turn by the following six sets of objectives and policies. Methods of implementing these follow at the end of this section.

11.2.2 Objectives and Policies

Objective 1	**The maintenance and creation of residential environments which provide for the existing and future needs of the community.**
Policy 1.1	Accommodate residential growth and development of Blenheim within the current boundaries of the town.
Policy 1.2	Enable the development of infill sites where they can make use of the capacity of existing services, and any adverse effects on amenity values can be avoided.
Policy 1.3	Maintain higher density residential use close to open spaces and/or within the inner residential sector of Blenheim located within easy walking distance to the west and south of the Central Business Zone.
Policy 1.4	Enable lower density residential use at the Blenheim urban periphery, to provide for a transitional environment between expected urban and rural amenities.
Policy 1.5	Ensure where proposals for the expansion of urban areas are proposed, that the relationship between urban limits and surrounding rural areas is managed to achieve the following: • Compact urban form; • Integrity of the road network; • Maintenance of rural character and amenity values; • Appropriate planning for service infrastructure; and • Maintenance and enhancement of the productive soils of rural land.
Policy 1.6	Hold further growth in Renwick on areas of land where suitable sewerage disposal is not achievable by way of septic tank systems until such time as the reticulated scheme is provided.
Policy 1.7	Recognise Ward and Seddon as focal points for growth if the Clifford Bay development proceeds.

The objectives and policies recognise and enable the continued existence of the residential environments within the Wairau/Awatere. They also seek to guide the development of future residential areas.

The Wairau/Awatere residential areas, including most areas of Blenheim, are characterised by low rise dwelling houses on individual lots. Over the last 25 years the inner residential areas of Blenheim have been steadily developing as a higher density residential environment. This Plan seeks to promote higher density residential use within the inner residential area of Blenheim. This will accommodate some of the future demand for housing (refer to Maps 157, 161 and 162, Volume Three).

Alternatively, lower density residential use will be promoted in locations on the Blenheim urban periphery where previous lower density residential development has occurred providing a transition between urban and rural activities. (Refer to Appendix H1, Volume Two).

These lower density areas have developed as a direct result of past Council decisions and the result has been a high level of amenity achieved, in a spatial location sense, between buildings. Property owners in these areas have acquired land with a standard of spatial/locational amenities in place and expect a continuity of these amenities.

The north western and south western peripheries have been identified as the areas most capable of accommodating future growth of Blenheim.

It is very important that the interface between urban peripheries and rural areas is sustainably managed. The relationship between the urban and rural zonings is the basis of expected amenities, planning for service infrastructure and efficiency, energy conservation and the retention of the rural land for productive uses, along with its character and amenities. Any expansion of the urban limits needs to be considered in a coordinated manner having special regard to the rural/residential interface.

Objective 2	**To ensure that growth occurs in locations suitable for residential development.**
Policy 2.1	Avoid new or further development in areas subject to natural hazards.
Policy 2.2	Limit residential development to the north of Renwick due to the flood hazard.
Policy 2.3	Limit any further residential development of Spring Creek because of flood hazard.
Policy 2.4	Limit any further residential development of Grovetown to the east and north, due to the flood hazard.
Policy 2.5	Limit any further residential development of Tuamarina township, and Tuamarina pocket in particular, because of flood hazard.
Policy 2.6	Residential development in the coastal environment will be assessed against the following matters: • The need to avoid sprawling or sporadic subdivision, use or development; • The likely exposure to natural hazards;

- The need to protect coastal ecosystems that are vulnerable to modification; and
- The contribution that the area makes to the amenity values found in the coastal environment.

Policy 2.7	Ensure urban growth does not adversely impact on the life supporting capacity of soils or on the productive capacity of rural land.

Residential development within the towns outside of Blenheim is limited to some degree by the occurrence of natural hazards, in particular flooding.

All closely settled residential areas in the Wairau floodplain are intended to be protected from floods of up to 1 in a 100 year return period flood. However, in some areas where there are existing residential communities, in an extraordinary flood, floodwater will break out of floodways in some locations. The resultant floodwaters could be particularly deep and/or fast flowing and therefore potentially life threatening. This has greater implications for more closely settled areas particularly in terms of potential property loss/damage, and safety (loss of life) than it does for isolated rural dwellings. There are serious "community implications" for closely settled communities.

This particular situation applies to the following areas:

- *The Tuamarina pocket area involving: Bush Road, England Street, Wakefield Street, Parkes Road, and the Kaituna Tuamarina Road, from its junction with Bush Road to where it crosses the stopbank upstream at "Raydale";*
- *The Spring Creek settlement; and*
- *Grovetown, east of Vickerman Street.*

Further residential development in these areas presents an unnecessary risk.

Below the terrace, north and northeast of the Renwick township, is another inundation sensitive area. While the Council continues with flood management works in this location there remains the threat of a flood break out from several rivers - the Wairau, Omaka, Gibsons Creek and Terrace Creek. The combined probability of flooding is therefore greater than a 1 in 100 year individual return period event and it is inappropriate for further close residential settlement to occur here. Settlement ponding of "Rural Residential" proportions may be considered in the context of site specific circumstances as they apply to the potential effects of inundation.

The effects of flooding must be avoided before any further residential development can take place. Renwick and Grovetown are also presently limited by cumulative effects.

In considering areas for future residential development, the productive capacity of rural land needs to be recognised and protected for long term sustainability. However, it also needs to be recognised that expansion of urban areas may inevitably need to be accommodated in rural areas, where it immediately adjoins existing towns/townships. Preference should be given to expansion on marginal or less productive land wherever possible with urban expansion balanced against the need to protect the life supporting capacity of soils. Where urban growth is to be provided for, it needs to be planned for in a coordinated manner rather than through piecemeal development.

Although there is a duty under Section 17 of the Act to avoid, remedy or mitigate adverse effects, the Council recognises that the principle rural activities inherently

involve effects that may not meet the expectations of an urban environment and that there needs to be compromise of those expectations at the urban/rural interface.

Objective 3	**Enable provision of opportunities for the establishment of a variety of activities within the Residential Zone whilst avoiding, remedying or mitigating the adverse effects of activities on the environment.**
Policy 3.1	Enable development for principally residential purposes within established residential areas.
Policy 3.2	Enable a range of residential accommodation types to suit the needs of people of all ages and the needs of people with disabilities.
Policy 3.3	Allow for certain non-residential activities to be established and/or continue operating so as to enable people to provide for their social, economic and cultural wellbeing and for their health and safety.
Policy 3.4	Allow for visitor accommodation and tourism related activities subject to controls to avoid, remedy or mitigate any effects which would detract from the character and qualities of the residential environment.
Policy 3.5	Enable residents of residential properties to carry out home occupations subject to controls to avoid, remedy and mitigate any effects which would detract from the character and qualities of the residential environment.
Policy 3.6	Enable the development of community facilities within residential areas subject to controls to avoid, remedy or mitigate any effects which would detract from the character and qualities of the residential environment.

The Plan aims to provide for residential activity and to enable the establishment of other activities which have the same, or similar and compatible effects as residential use.

The residential areas in the towns and small settlements of the Wairau/Awatere generally provide accommodation for permanent residents. A limited amount of visitor accommodation is also provided, mainly within Blenheim.

Types of accommodation vary greatly and include, for example, single dwellings for families, dwellings for elderly residents, retirement complexes, time share apartments and motel complexes.

There is a distinct trend towards fewer persons per household in Blenheim. Modern lifestyles have moved beyond the "kiwi quarter acre" and there is a need for a flexible and innovative approach that enables scope for a wider range of residential development and subdivision options.

The Council has responded to this trend by enabling a more flexible form of combined residential subdivision and development through the inclusion of "integrated residential" provisions.

The fundamental aim of integrated residential development is not one of just cramming more residential units onto a parcel of land. It is expected that integrated residential

developments will be "purpose designed" for the particular development site and the immediate neighbourhood, in accordance with the principles of sustainable management, as defined by the Act.

It is intended to impose similar performance standards for all development proposals within the urban and township residential areas to manage the effects of activities in a consistent way and to maintain residential character and scale, and local landscape quality. Where the nature, character, and effects of non-residential facilities and activities are compatible with the character of residential areas, there is no reason to prevent them establishing there.

Changes in employment practices and advances in communications technology have contributed to the growing numbers of people seeking to conduct businesses based at their residence. Traditional examples of such home occupations include offices for professional services eg: architecture; medical practitioners and health services; hairdressers; telephone sales. Technological change may, in the future, make a much broader range of activities possible. Where these activities are able to be accommodated within the residential area without causing adverse effects or nuisance to surrounding residential activities there is no reason to prevent their establishment.

Home occupations should not be permitted to develop to such a scale or intensity as would cause detriment to local residential character by giving rise to:

- *Excessive or unusual traffic volumes;*
- *Excessive noise, dust, glare or odour;*
- *Inappropriate location or appearance of advertising signs;*
- *Inappropriate (out of character or large scale) alteration to buildings; and*
- *Storage of goods, equipment, or vehicles within the site or on the street.*

The development of residential activities generally causes a demand for associated community facilities. These facilities include places of worship, educational establishments and places of assembly. Such facilities, while being of benefit to the community, can cause localised effects on neighbouring properties. For this reason, new community facilities within residential areas should be considered on their merits, as resource consent applications.

Community facilities such as the Wairau Hospital are of regional importance. The hospital is in a residential neighbourhood, however it contributes to the existing amenity and quality of that environment. It is a significant resource (in land, buildings and infrastructure), the sustainable management of which must be provided for in the Plan. A range of health care services should be permitted as of right at the hospital while enabling appropriate alternative use of the site under changing health service provision.

Objective 4	**The maintenance and enhancement of the amenities and visual character of residential environments.**
Policy 4.1	Maintain and enhance the amenities and visual character of the 'Urban Residential' and 'Township Residential' areas, including the retention of the former Blenheim 'Residential 1 Special Zone' low density allotments, which are provided for in Appendix H1, Volume Two of this Plan.

Policy 4.2	Permit new developments and activities within established residential areas provided their effects are compatible with the landscape character and local amenity qualities including: • Noise levels; • Privacy; • Overall volumes of traffic movements; • Building bulk and density; and • Access to daylight.
Policy 4.3	Control the height of buildings in residential areas in order to avoid, remedy or mitigate shading of adjoining properties and to maximise opportunities for views to important landscape features.
Policy 4.4	Enable buildings within residential zones to be located within individual allotments at the discretion of the property developer; whilst ensuring that buildings located close to property boundaries do not shade adjoining properties or have intrusive height in relation to the property boundary.
Policy 4.5	Maintain a low-to-medium density of building coverage on sites and ensure opportunities for space for domestic storage, service areas and private outside space within individual sites in the Urban Residential 2, Township Residential, and Deferred Township Residential Zones.
Policy 4.6	Allow a medium-to-high density of building coverage on sites within the Urban Residential 1 Zone.
Policy 4.7	Restrict noise emissions from all activities in residential zones to levels that reflect general background levels prevailing in those areas during daytime and night time hours.
Policy 4.8	Require all proposed residential allotments to have sufficient area, shape, and access from a public road to accommodate a range of residential activities.
Policy 4.9	Enable combined residential subdivision and development proposals, in the form of "integrated residential development", through flexibility of standards to achieve higher density purpose built developments that maintain or enhance amenity standards.
Policy 4.10	Subdivision of Colonial Vineyards (Corner of New Renwick Road and Aerodrome Road, Lot 2 DP 350626 and Lot 1 DP 11019) will be designed to meet the following urban design principles: a) It is not intended that the entire Urban Residential Zone be developed down to minimum lot sizes. The extent of the Urban Residential 1 zoning is to provide greater flexibility in locating higher density housing. b) Higher density housing will be clustered generally towards the north eastern corner of the block and around reserves. c) Lot sizes will be larger along and near the western and southern boundaries.

d) The development is to be carried out in stages, timed in response to the demand for residential sites. The first stages are to be to the north-east quadrant and the development will then progress west and south.

e) At least one, and not more than two, internal roads are to give direct access from the internal road network to New Renwick Road.

f) Walking linkages are to be provided to give access to New Renwick Road.

g) Additional internal roads, lanes and pedestrian-cycle access ways will be located where required to suit the detailed layout of the housing, including provisions for pedestrian-cycle connections at appropriate points. A pedestrian-cycle link is to be provided in the south-east corner to provide easy recreation access from the internal road network to the Taylor River floodway reserve.

h) The internal road network is to provide easy connections throughout the block and to discourage excessive vehicle speeds. Each stage is to include provision for connections to future stages, to ensure that the final road network functions seamlessly.

i) At least two neighbourhood reserves are to be located within walking distance of all residential lots. Their sizes will be determined at the time of subdivision in accordance with Policy 23.5.1.18.

j) Each reserve is to be bounded by roads on at least two sides of its perimeter.

k) Seek to optimise solar access to main living room windows or main private open spaces throughout the block.

The Act requires that, in relation to the use, development and protection of natural and physical resources, particular regard be given to the maintenance and enhancement of amenity values, (Section 7(c)). This issue is further clarified by Policy 7.1.7 of the Marlborough Regional Policy Statement, "promote the enhancement of the amenity values provided by the unique character of Marlborough settlements and locations".

The objective and policies above address amenity values and visual character for the residential environment.

The residential character that has developed within the residential areas of Blenheim, Renwick, Seddon, Ward, Spring Creek, Grovetown, Tuamarina, Rarangi and Wairau Valley is predominantly one of low density with single dwellings on individual sites; low building height; attractive buildings; open garden landscape; and wide streetscape. The exception to this is found in the higher density areas of central Blenheim. Nonetheless a lot of the same character and amenity still remain on these sites.

Community consultation confirms that the overall character, density, and the overall quality of the local environment is important to residents. These qualities are the principal reason for the attractiveness of the residential areas. Particular amenities which contribute to that character and which the community seeks to protect include:

- *Relatively quiet background noise levels (day and night);*
- *Privacy between individual residential properties;*
- *Ample sunlight to buildings, private open space areas;*
- *Views to surrounding hills;*
- *Low building height; and*
- *Open streetscape.*

The Plan seeks to maintain these residential amenities by requiring the management of adverse effects on these amenities arising from activities within and adjoining residential areas. The Plan seeks to maximise opportunities for views by maintaining a generally low building height and low-to-medium building coverage although the Plan will not guarantee views from individual properties.

New sites created by subdivision have historically been required to comply with various minimum area, frontage, and access standards. The creation of sites by cross-lease has involved a different legal mechanism and in some areas different site area standards have applied. New sites, whether created by title subdivision or cross lease or any other legal mechanism, should all meet the same standards. Those standards should provide sufficient area, shape, and access to enable reasonable future development for residential purposes and maintain a low-to-medium urban density throughout the settlements. This Plan aims to make all subdivision standards consistent.

Policy 4.10 is specific to the Colonial Vineyards site, New Renwick Road. This policy requires subdivision in this block to follow best practice urban design standards, in accordance with Environment Court decision ENV-2012.CHC-108 which approved rezoning of this block for residential development.

Objective 5	**The development of residential areas at a rate which ensures the maintenance and enhancement of community health standards.**
Policy 5.1	Ensure that the unconfined aquifer systems are not compromised by the cumulative effects of sewage effluent discharge (particularly from septic tanks) and other waste disposal to ground.
Policy 5.2	Ensure that all allotments and buildings within Blenheim, and any extending the urban area, connect to the reticulated water supply and waste water disposal systems.
Policy 5.3	Recognise that further growth of Renwick is controlled by the capacity for on-site sewage disposal.
Policy 5.4	Ensure that residential development in non-reticulated townships and settlements is within the capacity for sustainable on-site sewage disposal.
Policy 5.5	Avoiding any contaminants entering the stormwater systems within the urban environment.
Policy 5.6	Ensure adequate outfalls are available for stormwater disposal systems.

Policy 5.7	Ensure drains and water courses for removal of stormwater and floodwater can be maintained in a hydraulically efficient form.

The Plan seeks to ensure that residential developments are served with potable water supplies, and waste collection, treatment and disposal systems which do not contaminate the environment or compromise community health.

Blenheim is fully serviced with water supply and a reticulated sewage collection and treatment system. Therefore all new residential development within or as an extension of the Blenheim area will be required to connect to these systems in the interests of maintaining community health. Rules relating to the density of subdivision and development will take account of the finite limitations of the existing servicing infrastructure (including the receiving capacity of the sewage treatment system) and these rules will reflect the capacity of this servicing infrastructure to accommodate additional growth.

The Council recognises that further subdivision and residential development within Renwick is not sustainable until sewage reticulation is provided. Therefore, further development will be controlled until it is economically viable to reticulate the town.

Other townships may also be facing difficulties with the disposal of sewage on-site. However, given the small size of the townships, sewage reticulation may never be economically viable. For example, because Grovetown has high water table levels, groundwater contamination is possible if development were to continue uncontrolled.

Water supply and sewage disposal in Rarangi requires careful management to ensure that sewage contamination and saltwater intrusion does not occur.

By ensuring that contaminants do not enter stormwater systems, for example petrol and oil from service stations, some of the adverse effects of stormwater discharges on water bodies can be avoided.

In the urban environment open stormwater channels and drains are usually kept as small as practical and need to be maintained in an efficient and effective manner.

Objective 6	**Promote the efficient use of energy in the design and construction of residential subdivisions and residential dwellings.**
Policy 6.1	Encourage incorporation of principles of energy efficiency in the design and construction of residential subdivisions.
Policy 6.2	Enable optimum siting of buildings on residential lots to maximise opportunities for the implementation of energy efficient design and construction of individual residential dwellings.
Policy 6.3	Promote compact urban form in the established urban settlements of the Wairau/Awatere.

The objective and policies above follow on from Policy 7.5.3(a) of the Marlborough Regional Policy Statement which is an overall policy for energy efficiency in Marlborough.

The design and layout of residential subdivisions together with the location and design of individual buildings can influence energy use. Residential settlements which extend

new roads long distances beyond central community services can give rise to unnecessarily lengthy journeys by vehicle to and from those services.

The orientation of buildings on individual sites so as to receive maximum sun is an accepted rule of thumb in the New Zealand building industry. Building location, in the first instance, will strongly influence the success of design features intended to maximise solar energy use (for example solar water heating and window placement for passive solar space heating). It is therefore important that the design of subdivisions enables the future siting of buildings to maximise orientation to the sun.

11.2.3 Methods of Implementation

Zoning

Two Urban Residential Zones have been applied to Blenheim. The inner residential areas have been zoned Urban Residential 1 in recognition of the policy seeking to promote higher density residential development here. The remaining residential areas within Blenheim have been zoned Urban Residential 2. (Refer to Map 155, Volume Three.)

The provisions that qualify Urban Residential 2 Zone activities include recognition of the existing low density urban/rural transitional amenities at the south east urban periphery of Blenheim, (an area previously zoned "Residential 1 Special Zone" under the Transitional District Plan).

Residential areas outside of Blenheim are zoned Township Residential. This zone allows for the special demands of small town or settlement residential areas. For example, the requirements created by the need for on-site sewage disposal.

The Township Residential Zone has been applied to the residential areas at Renwick, Seddon, Ward, Spring Creek, Grovetown, Tuamarina, Rarangi and Wairau Valley.

Expansion to Ward and Seddon which may result if the Clifford Bay Ferry Terminal proceeds will be examined by way of a resource study which would be implemented through the plan change process.

An additional Deferred Township Residential Zone has been applied to Rarangi in recognition that limited further residential development will be considered applicable once a permanent potable water supply has been installed.

Residential development will largely be confined to the identified residential zones in the established settlements. This will ensure a compact urban form, addressing energy efficiency.

Marlborough Ridge Residential Township

At Marlborough Ridge in the Residential Township Zone, subdivision is a non complying activity given that subdivision of vacant land has been completed and further subdivision of existing lots is not contemplated in order to maintain existing amenities and because there is insufficient water supply and sewage disposal capacity.

Scheduled Site	Health services will be permitted as of right at Wairau Hospital by way of a schedule which specifies conditions particular to that site. The zoning of the site will remain Urban Residential Two. Education Services will be permitted as of right at Marlborough Polytechnic by way of a schedule which specifies conditions particular to that site. The zoning of the site will remain Urban Residential Two.
Rules	Plan rules permit residential activity within the Urban Residential 1, Urban Residential 2 and Township Residential zones subject to performance standards being met. Site specific rules also apply to sites identified in Appendix G. Proposals for non-residential activities will generally be considered on their individual merits through the resource consent application process. Home occupations which are compatible with the existing character of residential areas will be provided for as Permitted Activities, subject to performance standards being met. Small scale visitor accommodation in established buildings will be permitted subject to performance standards. Other proposals for tourist accommodation will be considered on their effects as Discretionary Activities. Plan rules provide for the establishment of community facilities as Discretionary Activities. Flexible standards are available for "integrated residential development" which combines joint proposals for residential accommodation and subdivision, whilst ensuring the maintenance or enhancement of amenity standards. All activities within residential areas will be subject to performance standards designed to maintain and enhance local residential character. Plan rules require all subdivisions and developments for residential purposes to provide water supply and waste disposal which meet specified standards. Plan rules require all subdivisions and residential development in the Township Residential and Deferred Township Residential Zones to make satisfactory provision for on-site water supply and effluent and stormwater disposal (where a community sewage disposal system is not available). Plan rules will control activities within 8 metres of the bank of streams to facilitate keeping water courses in a hydraulically efficient state.

Performance Standards

Plan rules permit activities within residential areas subject to performance standards to control the effects on amenity values and visual character including:

- Sunlight and outlook for neighbours;
- Noise;
- Building coverage; and
- Building height.

Standards control the development of new residential allotments in order to maintain the character of existing residential areas. For example, controls are included on lot size, residential site density, open space requirements and building platform requirements.

Proposals which fail to comply with the stated performance standards will be considered as Discretionary Activities. Where the extent of non-compliance (or variance from standard) is minor,

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	applications will be considered as 'Limited Discretionary' Activities with their assessment confined to a consideration of the effects of the non-compliance.
Annual Plan	Through the Annual Plan process, the Council will progressively undertake improvements to local roading, sewerage, water supply and stormwater services.
Research	The Council will continue to monitor and research the requirements of and limitations to residential growth in the urban areas, townships and settlements of the Wairau/Awatere.
Reserves	Through the Reserves Management Strategy, the Council will manage the parks and reserves which are an important contribution to the amenity of the urban area.
Community	The Council will encourage any community initiated amenity improvement programmes to improve residential amenity standards.
Other Legislation	Buildings intended for human occupation will be required, in terms of the Building Act, to comply with standards for providing adequate supply of potable water and means of disposal of waste water effluent.
Guidelines	The Council will make available its Code of Practice for Subdivision and Development which sets out a means of compliance with the Plan's requirements for water supply and waste disposal services. Compliance with the Code will be deemed to be compliance with the Plan. The Council will develop guidelines or Codes of Practice to assist residents select, install and operate alternative water supply and sewage disposal systems. The Council has developed a set of guidelines to assist in the design of residential subdivisions and residential buildings to maximise energy efficiency. The Council will promote energy efficiency and solar energy use by providing a hand-out summarising the guidelines.

Plan rules are considered to be the only effective method of controlling residential development within sustainable limits. Urban residential areas must be able to be sustainably served with the necessary services.

Plan rules are necessary for ensuring that the effects of activities undertaken within urban residential areas are compatible with the character and amenities of those areas. Rules provide for residential activities as Permitted Activities subject to performance standards to protect amenity. Non-residential activities will be considered on their merits and in terms of the objectives, policies and standards relating to residential amenity and character.

The Plan acknowledges that it is appropriate for community facilities to be located within residential areas. However, rather than prescribe a set of performance conditions anticipating all effects of community facilities, these will be assessed as applications for resource consents on their individual merits and in terms of their effects within the residential environment.

Plan rules set performance conditions controlling building height, potential shading of adjoining properties, and maximum building coverage. It is considered that rules are necessary because they provide maximum certainty for residents and developers of sites in residential areas where maintenance of amenities is important to people's wellbeing and to the security of property investment.

Plan rules are considered to be the minimum necessary to ensure that the installation and operation of water supply and wastes treatment and disposal systems meet desired community health and environmental standards.

The further methods outlined above are matters which the Council is either required to address or is intending to address for various reasons. They all offer progress in terms of the objectives identified for the residential environment.

11.3 Business Areas

The principal business and retail area within the Wairau/Awatere area and Marlborough at large is the Central Business Zone of Blenheim, and more specifically within the Primary Shopping Area of the Central Business Zone. Within Blenheim there are several suburban business areas as well. A mixture of retail service and light industrial activity extends along Grove Road and Main Street in Blenheim. In addition, identifiable areas containing a range of commercial, administrative, service and industrial activities occur within the Renwick and Seddon townships.

It is important for the identity of Blenheim that the Central Business Zone, and the Primary Shopping Area, remain the regional focal point for retail, commercial, cultural and social activity, and the town centre continues to thrive as the principal shopping location. It is acknowledged that the increasing demand for and choice of goods will result in pressure for retail developments to occur in other locations, but these should always remain in a secondary position to the primary function of the Blenheim town centre.

11.3.1 Central Business Area

The Central Business Zone has been applied to the central commercial area of Blenheim. This zone incorporates the inner shopping areas of Market and Queen Streets and stretches to include the surrounding business areas as well. Refer to Maps 161 and 162 (Volume 3) for zone boundary.

The Central Business Zone in Blenheim concentrates a wide range of important activities. These include retail shops, professional and administrative offices, civic and community facilities, emergency service activities, personal and household services, entertainment, restaurants and bars.

The Blenheim commercial areas, in addition to serving a significant resident population, serves an extensive rural area, being the largest town of Marlborough. Increasingly too, the business area of Blenheim is providing for the needs of travellers and tourists.

Blenheim's business area represents the District's largest investment in terms of building and development. There is considerable public and private investment in the Central Business Zone in the form of roading, car parking, street lighting and other infrastructure which is important in providing commercial services and shopping facilities for the community.

In the past, planning rules have restricted the type of retailing allowed within those outer parts of the Central Business Zone. This Plan, being prepared under the effects based Act does not continue this. Rather, in preparing the Wairau/Awatere Resource Management Plan the Council has established two important matters:

- There is a need for a cohesive and vibrant centre in Blenheim as a place of regional importance; and
- The effects of all of the activities in the Central Business Zone need to be considered in a consistent manner.

11.3.1.1 Issue

Managing the effects of an intensely developed commercial and retail sector, which is complemented by key community facilities, in a manner which promotes a vibrant and prosperous centre for Blenheim and Marlborough.

Commercial activities such as retail outlets, offices, banks, restaurants, tourist accommodation and other services make an important contribution to the urban environment. The success and viability of an urban environment depends to a very large extent on the vibrancy and vitality of its commercial centre. Modern society has become very dependent on motor vehicles and it is considered that, for provincial centres to remain vibrant, they must cater for this dependency. The Council's Regional Land Transport Strategy addresses this issue. The Council also maintains a long term carparking strategy which provides for a balance between long and short term parking needs.

The Council has used zoning as a method of identifying the town's business area resource. Within the zone there is a further delineation of areas to accommodate the impact of zone specific car parking activity. The effects of activities can then be managed as they relate to the zone and to the wider urban environment.

The Council has and will continue to take an active role in the promotion and establishment of community facilities.

New Zealand society is changing rapidly and the expectations of the community of how services and leisure time are consumed are also changing. In addition, people are working longer hours.

The impact of these changes has caused much debate and analysis of what people want from their leisure time and how Local Government should respond. Leisure and recreation are consumer and fashion driven and a greater emphasis is being placed on:

- Freedom of choice;
- Better service;
- Competition for sponsorship;
- Provision of quality facilities;
- Entertainment; and
- Event management.

Over the next ten years there will be significant changes in how people elect to spend their leisure time and in the range of recreational opportunities which are available. These changes could include:

- Greater consumer choice and expectation;

- Greater demand for the development of new and different recreational opportunities for older people;
- Greater participation with groups, offerings and family or through casual groups;
- Move away from traditional sports and physical contact sports;
- Development of multi-purpose activity centres which combine the comforts of home with east of access and with wide variety;
- Focus on entertainment; and
- Instant availability with minimum discomfort.

The Council recognises that today's leisure facility should cater for all ages, toddlers to grandparents and provide as many active leisure options as possible linked with retail, food and beverage areas.

The Council sees the development of a significant recreational facility in combination with the Aquatic Centre within the town centre as a significant strength to the town centre's viability.

11.3.1.2 Objectives and Policies

Objective 1	**Recognition and support of concentrated commercial activity and associated resources within central Blenheim.**
Policy 1.1	Retain the continuity of and enable the establishment of a wide variety of commercial activities within the Central Business Zone.
Policy 1.2	Encourage stakeholder initiatives to promote a vibrant and diverse centre for Blenheim and Marlborough.
Policy 1.3	Avoid, remedy or mitigate any adverse effects of Central Business Zone activity on neighbouring residential amenities.
Policy 1.4	Contain the adverse effects of commercial activity within the boundaries of the Zone.

The establishment of a Central Business Zone provides for a wide range of effects based Permitted Activities and enables the effects of these activities to be managed in a consistent and comprehensive manner.

The zoning of the land that comprises the Central Business Zone provides some predictability of effects and a cost-effective basis for environmental controls. By doing this it is possible to differentiate between controls which manage effects internal to the zone and those which are designed to manage effects on the residential interface or the wider environment. The land identified and zoned "Central Business Zone" reflects the resource as a whole and acknowledges consolidation and growth.

Objective 2	**A convenient and well organised central business area.**
Policy 2.1	Encourage development of the central area as a compact and convenient commercial centre for workers, shoppers, facility users and visitors.

Policy 2.2	Ensure that the transport network is compatible with Central Business Zone activity.
Policy 2.3	Ensure that any car parking requirements generated by an activity are catered for within the Zone and preferably on site.
Policy 2.4	Promote a pedestrian orientated inner centre supported by strategically located car parking areas.
Policy 2.5	Avoid the peripheral extension of the potential conflict between traffic and pedestrians by restricting pedestrian oriented retail and service activities to the areas currently zoned Central Business Zone.
Policy 2.6	Provide collective car parking to serve the inner parts of the Central Business Zone.
Policy 2.7	Retain or enhance the levels of carparking provided by the Alfred Street, McMurtry, Centennial Hall, Queen and Wynen Street Carparks.
Policy 2.8	Maintain and enhance user amenities by requiring verandahs over the denoted primary shopping areas.
Policy 2.9	Encourage redevelopment in the denoted primary shopping areas to utilise existing service lanes to provide off-street access and loading facilities.
Policy 2.10	Implement traffic management measures as required to maximise the efficiency of the Central Business Zone.

These policies seek to promote a convenient and compact central focus for Blenheim which enables the Central Business Zone to retain and continue its function as the retail, commercial, cultural and social focus of the town and the wider surrounding region. Comparison shopping and the recreational/cultural functions served by the town centre, are enhanced by a pedestrian orientation. A cohesive and convenient centre is valued and well used by the community. The carparking policies are designed to enable the inner shopping precinct to be maintained as tight knit as practicable whilst providing for the effects of traffic generation elsewhere in the zone.

Objective 3	**The maintenance and enhancement of the character and amenities of the Central Business Zone.**
Policy 3.1	Promote and encourage the inclusion of public amenities and facilities.
Policy 3.2	Encourage adequate levels of daylight admission to public areas.
Policy 3.3	Promote the integrated improvement of the external appearance of buildings.
Policy 3.4	Integrate the use of street furniture, signage and hard and soft landscaping.

The establishment of public amenities such as street furniture, children's play equipment, landscaping or community buildings, along with attractive

architecture and integrated colour schemes contributes to the attraction of the Central Business Zone as a destination in its own right. The vibrancy of the town centre relies on a balance of amenity and attractions, not simply a reliance on retailing.

11.3.1.3 Issue

Managing the vulnerability of the Central Business Zone from commercial activities outside the Central Business Zone.

- Ensuring that the Primary Shopping Area and Central Business Zone remain the regional focus of commercial activity.
- The need for redevelopment of the Primary Shopping Area, to improve its attractiveness and to ensure that sites meet modern retailer requirements.
- The continued need to provide for larger-format retail development in the Central Business Zone where such activities are compatible within the Central Business Zone, while ensuring adequate parking and access to service both these sites and the Primary Shopping Area.
- The pressure for larger format retail activity on sites outside the Primary Shopping Area/Central Business Zone, balanced with the need to protect the surrounding amenity and to safeguard the local service function of the Neighbourhood Business Zones.
- The need to limit commercial activity outside of the Central Business Zone to ensure the vitality and vibrancy of the Blenheim town centre and Neighbourhood Business Zones are not impacted on.
- The need to allow commercial activities outside commercial zones which are ancillary to rural activities.
- The need to make provision for other commercial activities where the adverse effects of such activities are not significant or where such activities are not physically or practically appropriate to locate within the existing business zones,

11.3.1.4 Objectives and Policies

Objective 1	**Establishment of a retail hierarchy to ensure that commercial development is concentrated in appropriate locations and zones.**
Policy 1.1	Require a sequential approach to managing the location of commercial activity within Blenheim, using a retail hierarchy.
Policy 1.2	Require justification of, the need for and the impact on the Central Business Zone from commercial development located outside the Primary Shopping Area and Central Business Zone.
Policy 1.3	Provide for appropriate commercial activity in rural areas where directly related to rural industries or where such activities are not compatible within the existing business zones.

Retail Hierarchy

In recognition of the evolving needs and patterns of commercial activity within the Marlborough District, and the fundamental tenet of ensuring that the Blenheim town centre remains the regional retail centre, a hierarchy of location preferences has been created for commercial and retail activities. The hierarchy has four tiers.

Tier	Zone	Preference
Tier 1	Primary Shopping Area	
Tier 2	Central Business Zone	
Tier 3	Neighbourhood Business Zone	
Tier 4	Other Zones	

The first tier, the Primary Shopping Area, is already well established in terms of retail and commercial activity. The Primary Shopping Area is an attractive, pedestrian orientated environment. It is generally characterised by local independent retailers and national multiples providing a range of speciality shops and services, and comparison retailing, from units generally less than 500m^2 in size. It is likely to attract people combining a shopping trip with leisure and entertainment.

It is important that speciality shops and services and comparison retailing continue to locate in the Primary Shopping Area, but are balanced with other leisure and entertainment activities, to encourage linked trip visits and to ensure that the town centre remains vibrant throughout the day. Car parking areas for the Primary Shopping Area are provided for by the Council.

The wider Central Business Zone is the second tier in the retail hierarchy. It currently accommodates commercial activities generally requiring larger retail spaces, ranging from 500m^2 to 1,500m^2. The area is typically characterised by lower-height buildings and car parking is on site. The Central Business Zone is more car-orientated, with main roads allowing traffic to flow through and around the town centre while avoiding the Primary Shopping Area as far as possible. The wider Central Business Zone area should continue to meet the requirements of larger retail operators (500m^2 to 1,500m^2) and be easily accessible by all modes of transport. Infill and redevelopment of the Central Business Zone should allow suitable sites to be aggregated to meet the variable needs of new operators.

The third tier, the Neighbourhood Business Zone provides a localised shopping and service function typically meeting the day to day needs of the surrounding residential areas.

The local scale of Neighbourhood Business Zone centres should be retained where possible and consideration given to any sensitive adjacent activities, for example, residential zones.

Any increase in the scale of the Neighbourhood Business Zones must not compromise the vitality and viability of the Blenheim town centre.

Other Zones in the Plan have been included as the fourth tier. Commercial activity is provided for within other zones of the Plan, notably where the effects of those activities on the Central Business Zone are not significant and where consideration is given to the scale and type of retailing depending on the zone. Other Zones have been included to provide for operators who seek to locate in other zones because of the lack of availability of suitable alternative sites in a higher tier or where a proposed activity is not compatible in these zones. The location of commercial activities in the Rural 3 Zone will be assessed with regard to a range of matters which assist in considering the impact on the vitality and viability of the Primary Shopping Area and the Central Business Zone.

Objective 2	Infill and redevelopment of sites and existing buildings in the Central Business Zone.
Policy 2.1	Encourage the infill and redevelopment of sites and existing buildings to create new retail and commercial sites within the Primary Shopping Area and Central Business Zones.
Policy 2.2	Ensure that any infill and redevelopment is compatible with the form and function of the Central Business Zone.

Some redevelopment has taken place in recent years but, while there are few vacant premises, the core area would benefit from continued investment in redevelopment initiatives. Redevelopment will also provide opportunities to alter unit sizes to suit the variable needs of retail operators. Upper storeys can be used for other activities, such as office, service or residential, to create a vertical land use mix. Use of existing sites, through a policy of infill, will facilitate new development which should be encouraged so long as it is compatible with the Central Business Zone form and function.

Objective 3	A vibrant town centre.
Policy 3.1	Ensure that the Blenheim town centre is not adversely affected by commercial activity occurring outside of the Central Business Zone.
Policy 3.2	Encourage a mix of retail, commercial, cultural and social activities to the town centre.

11.3.1.5 Methods of Implementation

Zoning	The Primary Shopping Area and Central Business Zone are identified on the planning maps, incorporating all central areas where a resource has been established to support retailing and other commercial and community facility activity. Neighbourhood shopping zones are also identified on the planning maps.
Rules	Plan rules enable the continuity and establishment of commercial activity, visitor accommodation, entertainment facilities and community facilities subject to performance standards. Other activities graded by effects implications will be considered as Discretionary, Non-complying or Prohibited Activities. Plan rules control advertising signs with conditions to manage any potentially adverse landscape, amenity or traffic distraction effects.
Performance conditions	Performance conditions address matters such as building height, vehicle access and loading, car parking, noise, hazardous facilities and the provision of verandas for pedestrian shelter.
Financial Contributions	For new developments setting up within the Central Business Zone not able to meet the car parking requirements, the Council may require a financial contribution in terms of Section 108 of the Act for the purpose of establishing public car parks.
Transport	Implementation of Marlborough's Regional Land Transport Strategy in conjunction with the land transport requirements of this Plan

(Chapter 19) will address the compatibility of the commercial area with the transport network.

Council Activities

The Council will implement traffic and parking management controls, in terms of the Local Government Act, that are appropriate to the season and traffic volumes in order to minimise conflicts between users and ensure efficient movement of vehicles.

The Council will obtain and develop land in appropriate locations for car parking.

The Council will initiate the development of an urban design plan for the Central Business Zone and encourage town centre promotion by stake-holders in the zone.

The Council will facilitate, where possible, the redevelopment of sites within the Central Business Zone to accommodate improved commercial facilities and to enable the most efficient use of land and buildings.

The Council as a landowner of significant underdeveloped sites within the town centre, (purchased to provide car parking for the Primary Shopping Area), will consider enabling infill development on those sites, where sufficient parking can continue to be provided on the site or provided on an appropriate alternative site.

The Central Business Zone represents a mixture of economic and physical assets. For resource management purposes, it is important to sustainably manage these physical resources whilst recognising the parallel need to manage the inherent natural resources.

The Plan identifies the existing town centre resource located in central Blenheim and zones this "Central Business Zone". Within this town centre environment certain activities, as determined by the effects which they create, are permitted, for example, commercial activities.

Performance standards are considered to be important to ensure the integrated management of the town centre and also to assure convenience and attraction for users. Performance standards therefore include requirements relating to vehicle circulation, parking, loading, access, pedestrian shelter, noise and building height.

Other management methods involve certain service delivery initiatives of the Council which seek to improve the amenity and functioning of the Central Business Zone.

11.3.2 Neighbourhood Business Areas

This zone includes the commercial areas at Redwoodtown, Springlands, Moran Street, Alana Place, Budge Street and the Hospital Road - Maxwell Road corner shops. A number of smaller individual sites also feature this zoning.

11.3.2.1 Issue

The impact of neighbourhood business centres on surrounding areas.

Neighbourhood business centres have evolved to provide a decentralised commercial resource as the town's periphery has been progressively developed. Their effective management requires a different approach from the Central Business Zone. They generally sit within residential areas and provide a concentrated satellite resource in a small identifiable environment with different effects being generated to those of the

surrounding area. For example, neighbourhood business areas generate more vehicle movements than those created by the surrounding residential activity.

Neighbourhood business centres are valued as resources by the community in that they provide for the general day to day needs of local residents. The centres which feature this zoning have and will continue to develop in a unique manner. These centres respond to the local community demands for shops and services. Centres such as Springlands, with good exposure to passing motorists, serve a much wider catchment.

Neighbourhood business centres need to be managed so as to minimise adverse effects, particularly on surrounding residential areas.

11.3.2.2 Objectives and Policies

Objective 1	**The retention and maintenance of neighbourhood business centres which respond to community needs and which have a minimum impact on surrounding areas.**
Policy 1.1	Enable low impact commercial and community activities to locate within the Neighbourhood Business Zone.
Policy 1.2	Contain the adverse effects of neighbourhood business activity within the boundaries of the Zone.
Policy 1.3	Avoid activities which generate significant increases in vehicle movements or the number of heavy vehicles on residential streets.
Policy 1.4	Ensure that any car parking requirements generated by an activity are catered for within the Zone and preferably on site.
Policy 1.5	Avoid activities which give rise to levels of odour, dust, glare or noise incompatible with the character and expected amenities of the Neighbourhood Business Zone.
Policy 1.6	Avoid activities which give rise to levels of odour, dust, glare or noise in neighbouring zones inconsistent with the reasonably expected amenities of such a zone.
Policy 1.7	Avoid or mitigate any adverse effects from use, storage or transport of hazardous substances, particularly any risk to people.
Policy 1.8	Maintain the visual character and amenity of Neighbourhood Business Zones and that of neighbouring areas.
Policy 1.9	Ensure that any changes to the commercial activity within the Springlands Neighbourhood Business Centre continue to position it as a satellite resource, subsidiary and complimentary, to the Central Business Zone.
Policy 1.10	Expansion of the commercial activities at the Springlands Neighbourhood Business Centre will be subject to an assessment of potential adverse effects on the Central Business Zone.

The policies aim to preserve amenity both within and outside the Neighbourhood Business Zones. In particular, they target the adverse effects of commercial type activities which are potentially incompatible with a predominantly residential environment.

11.3.2.3 Methods of Implementation

Zoning	The Neighbourhood Business Zone locations are identified on the planning maps, incorporating local shopping areas throughout Blenheim.
Rules	Plan rules generally permit commercial activities and community facilities within the Neighbourhood Business Zone. Some commercial activities which have potentially greater adverse effects, particularly on neighbouring residential areas, are provided for as Discretionary Activities. These include restaurants, bars and other licensed facilities (including the sale of liquor in supermarkets) and the future expansion of the Springlands Neighbourhood Business Centre beyond what is allowed as a permitted activity.
Performance Conditions	Performance conditions to maintain amenities address matters such as building height and bulk, vehicle access and loading, car parking, noise, etc.
Transport	Implementation of the Marlborough's Regional Land Transport Strategy in conjunction with the land transport requirements of this Plan (Chapter 19) will address the compatibility of the neighbourhood business centre with the transport network.
Other	Council and property owner enhancement of Neighbourhood Business Zones through paving, planting and similar methods.

Neighbourhood business centres play an important role in the community. They supply day to day goods and services in a convenient and easily accessible manner. It is important that they are able to continue in a way in which adverse effects, particularly on nearby residential areas, are avoided, remedied or mitigated.

11.4 Industrial Areas

Industry is a significant part of any community. It supplies the community with the goods and services it is dependent upon. In addition, industry provides a significant proportion of the population with employment.

Within the Wairau/Awatere area there are two types of industrial areas. Those urban industrial areas within Blenheim e.g. the Grove Road - Main Street area, Springlands and the milk treatment site in Redwood Street. The larger industrial estates at Burleigh, and Riverlands differ from the urban areas in that the sites are used for larger scale manufacturing and processing type activities.

For the purposes of this Plan the former has been zoned Industrial 1 and the latter, Industrial 2. The different zonings enable the rules to address the different environmental needs and constraints. The objectives and policies remain the same and are included for both zones in this section.

The grouping together of industrial activity within zones promotes the sustainable management of resources. The grouping together of industry creates efficiencies and enables any adverse effects to be contained and managed in a comprehensive manner. Industrial activity generally creates a number of recognisable and often significant

adverse effects. These effects can be considerable and if not managed properly, can adversely impact on the immediate and surrounding environment.

The Act 1991 requires that the adverse effects of industrial activity are avoided, remedied or mitigated. The effects of industrial activity can include visual impact, noise, vibration, dust, odour, glare, traffic generation (in particular, heavy vehicle movements), discharges of waste to air, land and water and the use and storage of hazardous substances.

In zoning areas for industrial activities it is important that other non-industrial activities do not locate within the areas set aside for industry. Other activities such as residential or retail activity, demand a different type of environment, generally one of a higher standard. This would then threaten the particular environmental standard which has been selected for the industrial zones.

11.4.1 Issue

The adverse effects of industrial activity.

Industrial areas within the Plan area vary in their nature. Light industrial/service areas can be found along Grove Road through to Main Street (State Highway One). Heavier industry, many involving the processing of primary produce such as timber and meat can be found at Burleigh, and Riverlands.

Industrial activity has the potential to create serious environmental effects and can significantly impact on other activities which may be nearby. The Act requires that the effects of activities must be avoided, remedied or mitigated. By adopting a zoning approach the effects of industrial activity can be contained. Industrial activity is zoned for and permitted within industrial zones and consequently not provided for in other zones. In turn, this provides for an environment where in most places adverse effects of industrial activity are fully avoided. Within the industrial areas or zones, adverse effects arising from activity are likely to occur. Here, the intention is for them to be mitigated.

Therefore, the issue of managing the adverse effects of industrial activity can be resolved by containing and confining industry and its effects to industrial zones.

11.4.2 Objectives and Policies

Objective 1	**Containing the effects of industrial activity within the boundaries of industrial zones.**
Policy 1.1	Avoid, remedy or mitigate any adverse effects of industrial activity beyond the bounds of Industrial Zones.
Policy 1.2	Avoid, remedy or mitigate adverse effects within industrial areas.
Policy 1.3	Encourage heavy industry to locate within the Industrial 2 Zones.
Policy 1.4	Enable light industry and service activities, along with general industrial activity, within the Industrial 1 Zones.
Policy 1.5	Restrict activities from locating in Industrial Zones which demand a higher or different environmental standard to industrial activities.

Policy 1.6	Enable the establishment of activities which rely on a location close to industry and/or which serve industrial activity provided any effects are compatible.
Policy 1.7	Avoid the adverse effects of pedestrian activity on national routes adjacent to industrial zoned land that can arise from the establishment of retail activities.
Policy 1.8	Avoid, remedy or mitigate the effects of industrial activity on any adjoining residential areas.
Policy 1.9	Promote a high standard of environmental design and maintenance in industrial areas and require contributions to landscape planting in key landscape corridors and at entrances to Blenheim.
Policy 1.10	Ensure that the size, height and bulk of industrial buildings and structures is compatible with the townscape and characteristics of individual sites.
Policy 1.11	Avoid, remedy or mitigate the effects of any discharges or waste generated by industrial activity.
Policy 1.12	Promote energy efficiency in industry as a means to avoid, remedy or mitigate adverse environmental effects.

Industrial activity has the potential to cause significant adverse effects, particularly affecting other activities. The policies establish two industrial zones, creating environments which are not suitable for all activities. Instead they have been created in order to contain the effects of industry to small areas. The policies recognise that industrial activity is necessary and needs to be accommodated within the Plan area.

The objective of containing the effects of industrial activity will be assisted by a compact zone with no extra area than is necessary for the activity for which the environment or zone has been created.

The intention of two separate industrial zones is to recognise the differences between several industrial areas within the Blenheim urban area and the larger industrial estates. The Industrial 2 Zone which has been applied to the Riverlands and Burleigh areas provides an environment for heavy industrial activity while the Industrial 1 Zone which is applied to those industrial areas within Blenheim recognises that a slightly higher environmental standard is necessary within the urban area, to ensure that adverse effects of industry are avoided so that the qualities of adjoining residential, open space or business areas are not compromised.

State Highway 1 through Blenheim is, over much of its length, bounded by industrial zoned land. A similar situation applies in respect of State Highway 6, although the affected length is not so great. The safety and efficiency of these routes can be adversely affected by land use activities, which have a propensity to attract pedestrian customers, such as retail activity. Such activities are better located away from these national routes.

11.4.3 Methods of Implementation

Zoning	The Industrial 1 and Industrial 2 zones are identified on the planning maps within the Blenheim urban area and the Riverlands, and Burleigh industrial estates respectively.

Rules	Plan rules permit industrial activities within industrial zones subject to compliance with performance standards. Heavy industry is permitted within the Industrial 2 Zone. Proposals which fail to comply with stated performance standards will be considered as Discretionary Activities. Non-industrial activities within the industrial areas will be considered as Non-Complying Activities. To address amenity values, rules will require contributions of funds or landscaping works from industrial developments for the purpose of acquiring and developing landscaped areas within Industrial Zones. Where industrial zoned land adjoins non-industrial land rules will require that buildings comply with the maximum height and building location requirements, of the adjoining zone in respect of the common boundary.
Performance Conditions	Performance conditions address matters such as noise, vehicle access and loading, parking, building height and location, landscape enhancement and size, location of advertising signs, effluent disposal and discharges to air (including smell and dust). Higher standards are required within the Industrial 1 Zone.
Other	The Council will promote ongoing landscape improvement of the main transport corridors within industrial areas.

The provision of specifically zoned industrial land means that the adverse effects of industrial activities can be geographically contained. It is considered that Plan rules are necessary to control the expected adverse effects of industrial activities. Plan rules establish performance standards to avoid, remedy or mitigate adverse effects. The standards are set at levels appropriate to enable industrial activities to operate effectively within the zone and seek to minimise nuisance and hazard for neighbouring residents and activities. Standards for some effects may therefore be higher at the zone boundary.

The Industrial Zones are located close to major transport corridors and at the main entrances to Blenheim and Renwick. The Council seeks to enhance the landscape at these entrances. Rules require a contribution from industrial development towards the enhancement of the landscape and amenity of key entrance points within Industrial Zones.

11.5 Rural Townships

Small rural townships are typified by their small scale and low intensity development. The townships usually comprise a varied mixture of rural service activity, commercial activity, industry (often primary based) and community/recreation activities often scattered amongst residential activity. The main geographic distinction which can be made in the rural township is between residential areas and the mixed use 'centre'.

Within the Wairau/Awatere area, there are the following rural townships: Renwick, Seddon and Ward. Within these three towns, an identifiable mixed use centre exists, distinct from the surrounding residential areas. There are further townships within the Plan area, for example Grovetown, that are predominantly comprised of

residential use. The residential component of all rural or small townships is discussed under 11.2 (Residential Environments).

The Wairau/Awatere rural townships make an important contribution to social and economic wellbeing of the local population. The mixed use centres in these townships are all located on major arterial routes within the District, providing services and facilities serving not only the local but also the wider rural population and visitors. In the case of Ward and Seddon there is an expectation of benefit from any spinoff that may result from the development, if it occurs, of a ferry terminal at Clifford Bay.

Each of these centres have both 'rural' and 'urban' elements as well as low intensity of development, informal appearance and large section sizes. This is typical of the amenity of a small rural township. The amenity of a township may also be influenced by local resources or specific activities.

For residents of the township and surrounding rural areas, sources of employment are crucial to their economic wellbeing, and minor adverse environmental effects arising from commercial and industrial activities are therefore generally accepted or tolerated in these areas. Commercial and industrial activities in townships may however impinge upon environmental qualities by:

- The visual intrusion of large buildings;
- Air and water borne effluent and noise pollution;
- Increased traffic on local roads;
- Increased pressure on services; and
- Incompatibility with areas of cultural significance to iwi.

To maintain a pleasant environment in townships and to ensure nuisances or health risks do not arise, there is a need to control adverse effects arising from commercial/industrial use.

Residential use in Renwick, Seddon and Ward is described further in the Residential Environments section (11.2).

11.5.1 Issue

Managing the effects of mixing commercial and industrial activity in small rural townships.

11.5.2 Objectives and Policies

Objective 1	**Managing the effects of mixed use rural township centres in a way that maintains the amenity and low intensity characteristics of the towns.**
Policy 1.1	Ensure the sustainable management of rural township resources in order to allow for mixed use (commercial and industrial) activity.
Policy 1.2	Enable the establishment of a wide range of activities within rural townships, subject to standards and conditions to avoid, remedy or mitigate any adverse effects on the environment.

11.5.3 Methods of Implementation

Zoning	The 'Rural Township' zone is identified on the planning maps within the Renwick, Seddon, Ward, Grovetown, Spring Creek, and Wairau Valley townships and Oak Tree Cottage. Expansion to Ward and Seddon, which may result if the Clifford Bay ferry terminal proceeds, will be examined by way of a resource study which would be implemented through the plan change process.
Rules	Plan rules provide for commercial and industrial activity subject to performance standards.
Performance Conditions	Performance conditions are incorporated to address such matters as local amenity values (i.e. controlling design and siting of development with building height, coverage, noise standards, car parking requirements, etc.) discharges and traffic safety.
Rules	Plan rules control advertising signs with conditions to manage any potentially adverse landscape, amenity or traffic distraction effects.
Other	The Council will promote ongoing landscape improvements of the main transport corridors within rural township areas.

Zoning and rules including performance standards are considered to be the most effective method of ensuring the provision and protection of rural township environments. All activities will be subject to performance standards to ensure people are not subject to adverse effects from neighbouring activities.

Those activities unable to meet specified standards are required to go through the consent process so that any adverse effects on the township may be assessed.

11.6 Anticipated Environmental Results

Implementation of the policies and methods relating to the urban environment will result in:

- A compact and coherent urban form;
- Retention of the character of the residential environments in the Wairau/Awatere;
- Prosperous business centres contributing to the visual character of the urban environment;
- Attractive, safe and pleasant industrial areas; and
- A mixture of low intensity land uses and development in small rural townships.

12.0 Rural Environments

12.1 Introduction

The majority of the Wairau/Awatere Plan area comprises moderately steep to very steep hill country and mountain land bisected by major river systems. Less than 5% of the land area could be described as low lying or flat. The Wairau River originates in the alpine climate of the Spenser Mountains at the northern end of the Southern Alps and is fed by numerous tributaries until it meets the sea on the East Coast. The Awatere River originates in the vicinity of the Rachel Range which acts as a watershed between the Acheron and Awatere Rivers. In their course, these rivers and their tributaries flow through glacial landscapes, indigenous and exotic forests, tussock grasslands, exotic grasslands and eventually travel through the highly modified landscapes of the Wairau Plain and lower Awatere catchment. The lower Wairau Valley around Blenheim is, with its flat land and alluvial soils the most intensively farmed area within the Wairau/Awatere Plan area.

For the purposes of looking at the sustainable management issues of the Wairau/Awatere rural environment it is convenient to view it in terms of the following management areas:

- The lower Wairau Plain;
- The Rural Uplands;
- The balance area of rural land in general including the lower Awatere;
- Rural lifestyle localities;
- The skifield in the Rainbow forest, St Arnaud range; and
- Salt Works Zone.

12.2 Wairau Plain

12.2.1 Issue

Recognising and providing for the dynamic inter-relationships between land, water and people.

The Wairau Plain with its flat land, rich alluvial soils, relatively abundant water resources and population base is the most intensively farmed and developed area in the Wairau/Awatere Plan area. The lower Wairau Plain is also a very highly modified rural environment being the subject of extensive and costly flood management works and a complex managed drainage system which benefits some 10,000 hectares of productive land. For the purposes of this Plan the Wairau Plain are represented by a Rural 3 Zoning.

This zoning is intended to differentiate the Wairau Plain land resource from other rural land because of its particular characteristics which make it a valuable and versatile land resource. The versatility of this resource arises from a range of factors which include soil qualities, climate, drainage capacities, the availability of a significant groundwater resource, flat topography and location in relation to an urban centre with its associated infrastructure.

The principal land uses include:

Horticulture, viticulture, mixed farming, export lamb production, cereal production, small seeds production, the production of process crops (mainly peas) for food processing, dairy farming, intensive cropping (e.g. garlic) and the growing of corn.

In managing the resources of the Wairau Plain provision should be made for the following:

- Protection of rural amenity values;
- Control of the effects of residential, commercial and industrial development in the rural area;
- Safeguarding of water resources;
- Giving priority to floodplain management where appropriate;
- Drainage;
- Maintenance of a rural landscape;
- Mitigating the adverse effects of intensive land use activity; and
- Sustainable management of the land resource, including the life supporting capacity and primary production potential, of its soils.

12.2.1.1 Sustainable Management of the life supporting capacity of the land and its soils.

The soils of this part of the District have proven to be quite productive (ie soils favoured by their close proximity to good water resources, population and favoured by mild climatic conditions) compared with some other districts. Even in areas where soil profiles which are relatively shallow, the life supporting capacity supplemented by irrigation has enabled high value intensive production to succeed. The primary production potential of the land depends on the way in which it is managed and used. Good sustainable land management practice retains production options and improves production potential while protecting the environment.

Subdivision and use of small rural lots for principally residential activities can result in substantial areas of the lots being covered by buildings, impervious surfaces and unproductive investment. A reduction in allotment sizes may reduce production options, which is why a Controlled Activity minimum allotment size of 8 hectares for the Wairau Plain has been in place for over 20 years. The increase in property values resulting from subdivision and residential development can make the long-term utilisation of the life supporting capacity of the soils unlikely.

In addition, activities such as topsoil removal or turf production can adversely affect the life supporting capacity of those versatile soils. The Council recognises that there will be a continued demand for properties for intensive primary productive use and that specific provision should be made for rural/residential lifestyles in this part of the district.

12.2.1.2 Protection of rural amenity values.

Rural areas are the setting for a range of activities which result in levels of noise, dust, smell and traffic generation which will often be contrary to the expectations of people more used to the amenity of urban areas.

The rural areas of the Wairau Plain have traditionally been farmed for livestock and intensive cropping. In addition, intensification and diversification of rural farming activities has occurred in the last two decades. This is a result of rural people wishing to either exploit new opportunities or having to because of economic necessity; or because of the influx of people wishing to farm small rural properties and being prepared to try a range of new pastoral and horticultural enterprises. At the same time, there has also been a demand for residential dwellings in the rural area for people wishing to live in and enjoy the rural environment, or people wishing to farm blocks on a part time basis. However, the consequence of the variety of rural activities alongside residential activities in the rural area, means that some farming activities have become the subject of complaints from people residing in the rural areas. Traditional rural activities, such as spreading of manure, crop spraying, late night and early morning use of machinery creating some noise, dust or vibration or even the barking of dogs are perceived by some people as a nuisance. In addition, the noise from bird scarers and wind machines for frost control can become the subject of complaints from people living near intensive horticulture areas. The rural environment has particular amenity and environmental values which are important to rural people. These include privacy, rural outlook, spaciousness, ease of access, clean air and, most of the time, quietness. However, because of the range of activities that necessarily occur in a rural area, there are levels of noise, dust, traffic generation and smell that are an essential part of rural amenity values.

Although there is a duty under Section 17 of the Act to avoid, remedy or mitigate any adverse effects, the Council recognises that the principle rural activities inherently involve effects that may not meet the expectations of an urban environment. Urban activities at the rural/urban interface must expect to compromise their urban amenity expectations where there are justifiable and reasonable effects as a result of primary production activities in the rural environment.

12.2.1.3 Residential, commercial and industrial development.

The maintenance of a rural environment is to some extent dependent on the exclusion of "residential" activity, the two being to some extent incompatible. However, given that it is desirable for a number of reasons to have some residential activity in the rural areas it must be accepted that this will to some extent require rural activities to mitigate environmental effects where these have significant adverse effects on residential activity.

Some commercial or industrial activity must necessarily be located in rural areas and in particular activities such as the wine/craft trail are dependent on it, but a general dispersal of business activities to the rural areas can result in a loss of rural amenity values and fragmentation of business areas within settlements with a loss of convenience, accessibility and vitality of business areas.

There is a need for people to be able to provide for their economic wellbeing and, therefore, the Plan seeks to enable a wide range of rural land management activities to establish in the rural area, subject to standards and controls to avoid or mitigate any adverse effects. These include farming, forestry, viticulture, horticulture, outdoor recreation, homestay accommodation, home occupations and some commercial activities such as retailing of primary products grown or reared on site or crafts made on site. In allowing these activities to proceed, the Council recognises that standards are needed to protect rural amenity values, as has been discussed earlier. However, industrial activities and other commercial activities, which are not dependent on the land upon which they establish, can have significant adverse impacts on the rural amenity values and environment, irrespective of general standards.

The visual impact of large scale industrial, commercial or accommodation buildings and ancillary structures, as well as the likelihood of significantly increased traffic generation is likely to have a cumulative adverse impact on amenity values such as landscape, privacy, rural outlook, spaciousness and quietness. In addition the lack of services in the rural area would necessitate these industries or activities extracting sufficient quantities of water for their development and also establishing appropriate large scale on-site waste disposal systems.

Furthermore, allowing any industry or commercial enterprise to establish in the rural area could cause fragmentation of the present industrial and commercial areas which have been established for Blenheim. Commercial, accommodation and industrial activities have been located in the past within the townships and will generally continue to be under this Plan for the following reasons:

- There is a supply of labour within the townships;
- There is ready access to goods and services;
- A range of activities is located conveniently to a large number of potential customers;
- There is access to environmental services such as reticulated water supply, sewer, stormwater and refuse services; and
- The types and scales of buildings and open space areas needed for these activities can be better accommodated within the character of the built environment.

The Business Areas section, under the Urban Environments chapter, sets up a hierarchy framework to enable the Council to consider the location of commercial activities outside the Central Business Zone. Consideration of large format retail commercial activity in the rural zone will be rigorously tested against this hierarchy, including requiring an assessment of whether those activities will significantly undermine the functionality of the Central Business Zone.

12.2.1.4 Safeguarding water resources

The ready availability of quality ground and surface waters in quantity is a major factor underlying the intensive development of the lower Wairau Plain. Sustainable management of the water resource is essential to the sustainability of this rural environment.

Water resources, ground, surface, and coastal waters, are vulnerable to contamination from various activities undertaken on land or on the surface of lakes and rivers. Sources of contamination may include dairy farm run off; septic tank effluent disposal; waste disposal from wineries; offal and refuse pits; mining operations; roading and tracking; spray or fertiliser application; or discharge of inadequately treated urban sewage. Such problems can be overcome by appropriate containment or treatment of possible contaminating discharges. In addition, there is potential that certain activities, for example forestry and irrigation schemes, can affect the water regime. Mismanagement can lead to impaired water quality and yields and its subsequent unsuitability or unavailability for drinking water or contact recreation; or its inability to support healthy natural aquatic ecosystems.

The Rarangi Community has an older settled area that has historically taken water from shallow wells. This water source is very susceptible to the risk of contamination, and development will be permitted where this aspect is identified and provided for.

12.2.1.5 Priority to floodplain management

For historical reasons modification of the inter-related watercourse of the lower Wairau floodplain is irreversible. The maintenance and improvement of the system is now an imperative and for as long as there is development of this area it will always be the case. In order to maintain the efficiency and effectiveness of the floodway system floodplain management will need to be accorded priority over other rural activities. This will mean controls on activities within the floodway, on subdivision and restrictions on gravel extraction from the plains in favour of strategic gravel extraction from the key rivers in the floodway system.

12.2.1.6 Drainage

A significant portion of the Wairau floodplain has naturally high groundwater levels that impact on agricultural and other productive use of the soil. The land to the east of Blenheim is low lying, being only a few metres above sea level. Much of it would barely drain except at low flows and low tides. Land to 4 km west of Blenheim is less low lying but is affected by groundwater springs. Overall there are some 10,000 hectares of land which benefits from the control of water levels in a network of natural watercourses and Council constructed drains. Agricultural and other production from these soils could not be sustained without control of the water level in these networks of watercourses.

12.2.2 Objectives and Policies

Objective 1	**To maintain or enhance the life supporting capacity of the versatile soils of the Rural 3 Zone (Wairau Plain).**
Policy 1.1	To sustainably manage the versatile soils of the lower Wairau Plain and recognise their life supporting and productive capacity.
Policy 1.2	To enable intensive rural activities to utilise the range of soil types and micro-climates available within the lower Wairau Plain.
Policy 1.3	Limit the scale and range of activities that can be established in rural areas to those that require a rural location, and discourage, as far as practicable, activities which do not rely on the productive capacity of the land of the Rural 3 Zone.
Policy 1.4	To encourage the long-term retention of the capabilities of the area's soils, through research and dissemination of relevant information to the community.
Policy 1.5	To promote environmentally sound land management practices.
Policy 1.6	To promote appropriate vegetative cover and implementation of land management practices which will improve or maintain soil organic matter and soil nutrient balance by retaining the soil and avoid accelerated soil loss through erosion.

The objective and policies are intended to protect the versatility and productive capacity of the soils of the lower Wairau Plain. The policies enable activities to occur while ensuring that any adverse effects on the soils of the Wairau Plain are avoided, remedied or mitigated. The soils of this part of the District are one of the significant resources which need to be managed to ensure the sustainability of the rural environment in this locality.

Objective 2	**To protect rural amenity values of the Rural 3 Zone by encouraging the establishment of a range of activities which do not create unacceptably unpleasant living or working conditions for residents and visitors, nor a significant deterioration of the quality of the rural environment.**
Policy 2.1	To recognise that activities permitted or provided for in rural areas may result in effects such as noise, dust, smell, and traffic generation but that these will require mitigation where they have a significant adverse effect on the rural environment.
Policy 2.2	To ensure that a wide range of rural land uses and land management practices can be undertaken in the rural areas without increased potential for the loss of rural amenity values or for conflict.
Policy 2.3	To limit the scale of rural subdivision and dwellings in order to retain the rural amenity values of openness, to reduce conflicts between residential and neighbouring rural activities, and to assist in protecting the quality of the water resources.
Policy 2.4	To avoid, remedy or mitigate the effects of activities that can cause unpleasant living or working conditions for the rural community, or that cause other significant adverse effects to the environment.
Policy 2.5	To avoid, remedy or mitigate the adverse effects of intensive farming activities, ensuring that their scale and nature, design and management, protect the amenity values of rural areas.
Policy 2.6	To manage the establishment of activities which result in higher than normal traffic generation to avoid, remedy or mitigate adverse effects on the safety and efficiency of the arterial road network.
Policy 2.7	Ensure that the patterns of small-scale rural subdivision and related residential development are not located where: • Rural amenity values of openness will be adversely affected; or • The potential for conflict between residential and neighbouring rural activities will be created, or where they already exist, be exacerbated.
Policy 2.8	To enable rural activities which might generate adverse effects such as noise or smell, to operate in rural areas in accordance with accepted practices, without being significantly compromised by other activities demanding higher levels of amenity.

A wide range of activities occur in rural areas, including viticulture, traditional livestock farming and the farming of supplementary crops, as well as more intensive pastoral and horticultural enterprises. Low density residential development has also spread throughout rural areas.

People have differing expectations about what are acceptable amenity levels in the rural environment. Amenity means how noise levels, odour strength, air quality and visual appearance relate to the overall nature of the rural environment. The inherent nature of land based productive activities, means that intermittently high noise levels will be produced when agricultural machinery is being used, stock is being moved or held, or crop protection mechanisms are activated. These activities may also result in increased odour levels and reduced air quality.

Therefore, current amenity levels in the rural areas of Marlborough are characterised by fluctuations in amenity because of both routine and seasonal land based primary production management practices. These fluctuations should be accepted as anticipated components of rural amenity values, particularly by those choosing to live in rural areas. This does not mean that the duty under Section 17 of the RMA to avoid, remedy or mitigate the adverse effects of activities is removed.

The policies seek generally to enable established rural land uses and associated management practices to continue to operate sustainably in rural areas, so long as the effects from these uses do not constitute a general nuisance or health risk. The Plan sets out the expected amenity levels for rural areas to protect human health and safety. This should ensure that the potential for reverse sensitivity conflicts between the expectations of rural residents and those undertaking rural land uses are avoided, as far as possible.

Control of subdivision is necessary to ensure that the rural zones can accommodate a full range of rural land-based activities. However, in providing for a full range of rural activities, the Council is mindful of the need to protect the rural amenity values.

Most of the problems associated with factory farming and intensive livestock farming activities occur as a result of poorly-sited and designed buildings and enclosures, and poor farm management practices and waste disposal methods.

Objective 3	**To maintain or enhance the life supporting capacity of soils, and the quality of surface, ground and coastal water.**
Policy 3.1	To encourage the efficient use of water, thereby conserving both water quality and quantity.
Policy 3.2	To avoid, remedy or mitigate the adverse effects of discharges on soil and water quality. The Deferred Township Residential Zone at Rarangi will only develop when a permanent potable water supply has been installed and service connection made to all properties in both the Deferred Township Residential Zone and the Township Residential Zone.
Policy 3.3	To safeguard the natural character and nature conservation values of riparian margins, and associated ecosystems.
Policy 3.4	To improve the control of run-off stormwater, including from roadways, to reduce the levels of sediment and contamination entering waterbodies.
Policy 3.5	To ensure that regard is given to the effect of activities on water quality, water yields and the water requirements of ecosystems, when considering resource consents.
Policy 3.6	Require land use consent for the establishment and operation of any new dairy farm.
Policy 3.7	Approve land use consent applications for new dairy farms where the proposed farming would have no more than minor adverse effects on ground, surface, and coastal water quality or wetland. A land use consent application must identify the risks of new dairy farming and provide measures to address those risks, including as a minimum:

(a) Measures, including fences, bridges or culverts, to prevent stock entering onto, or passing across, the bed of any river, stream, creek, lake, wetland or significant ephemeral stream, and any drain;

(b) Provision of an appropriate, non-grazed, buffer along the margins of any water body, including a river, stream, creek, lake, wetland or significant ephemeral stream, and any drain, to intercept the runoff of contaminants from grazed pasture, with reference to Appendices A, J and Q;

(c) Provision for storage of dairy effluent, with all storage ponds sufficiently sized to enable deferral of application to land until soil conditions are such that surface runoff and/or drainage do not occur;

(d) Demonstration of appropriate separation distances between effluent storage ponds and any surface waterbodies to ensure contamination of water does not occur (including during flood events);

(e) A nutrient management plan that includes nutrient inputs from dairy effluent, animal discharges, fertiliser, and any other nutrient input.

The quality and quantity of the District's water resources are essential to the prosperity and pleasantness of the lower Wairau, in terms of their life supporting capacity and availability for domestic and productive use. Water quality is also integral to the landscape character, recreation potential and amenity values of the area.

Objective 4	**The control of water levels in a network of natural watercourses and drains so as to remove surplus water and enable sustainable management of the soils of the lower Wairau flood plain.**
Policy 4.1	To maintain and upgrade a network of drains, drainage channels and small rivers within a drainage district on the floodplain.
Policy 4.2	To keep these drains and watercourses in a hydraulically efficient state by removal of weed and sediment.
Policy 4.3	To prevent backflows of major river floodwater into the network by means of floodgated culverts.
Policy 4.4	To use pumps and gates to aid in the removal of water from the network, or improve its efficient operation.
Policy 4.5	To enhance functioning of the network as ecological and habitat corridors.

The sustainable use of parts of the lower Wairau floodplain for agriculture is dependent on the ongoing maintenance of the existing drainage system which keeps the groundwater table high in the summer and low in the winter. The network of waterways also provides opportunities for the development of ecological corridors for fauna and flora.

12.2.3 Methods of Implementation

Zoning	Represent the Wairau Plain as a Rural 3 Zone.
Rules	Plan rules provide for activities on the basis of their effects on the sustainable management of the lower Wairau Plain as an area for intensive rural development. In general rural activities are provided for as Permitted Activities subject to performance conditions. Rural activities with the potential to cause significant adverse effects such as dairy farming, factory farming and intensive livestock farming are provided for as Discretionary Activities. A number of other activities are also provided for as Discretionary Activities. Land disturbance rules will control non-point sedimentation laden runoff from rural land use activities, and will avoid, remedy or mitigate the effects of land use activities on riparian margins. Plan rules provide a water allocation mechanism. Plan rules control discharges and set performance standards on discharges to protect water quality. Plan rules will control subdivision to protect the rural environment. Rules will be used to ensure that maintaining hydraulic efficiency is a priority function for drains and water courses less than 3 metres in width in the lower Wairau Plain.
Council Activities	Maintain and improve a network of natural watercourses and constructed drains as detailed in a suitable comprehensive engineering plan. Operate pump discharges from the drainage network into the major rivers as detailed in a suitable operational plan within a range of specified water levels, and specified discharges. Operate control gates within the drainage network as per a suitable operational plan. Encourage riparian management and wise land use management practice through education e.g. Rivers Environmental Handbook, Land Disturbance Best Practices.
Performance Conditions	Conditions are included for Permitted Activities to protect rural amenity values and environmental quality. These address matters such as noise, agricultural spraying, building bulk and location and land disturbance.
Research	Conduct, and where appropriate, encourage research into land use and land management practices that sustain the versatile soil resource of the Wairau Plain. Identify trends in the State of the Environment monitoring report which need to be addressed through changed land management practices.
Monitoring	Monitor the effects of land use activities on ground and surface water. Undertake a surveillance programme to ensure culverts and floodgates operate in a safe and effective manner.

Self Regulation	Recognise, support and promote initiatives such as self regulation by resource users themselves, where those users have a track record of compliance with performance standards in the Plan. Investigate self regulation through approved environmental management systems, which may benefit resource users and the Council through reduced consent administration, within one year of this Plan becoming operative.
Guidelines	Provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.
Education	Assist resource users to understand and implement the results of research into the effects of land use patterns and land management practices.
Rural Awards Programme	The Council will recognise environmentally sound farming practice by supporting the Marlborough Rural Environment Awards.
Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a riparian management strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.
Management Plans	Water Quality Management Plans will be required as a means of demonstrating on an ongoing basis that any adverse effects on water quality resulting from dairy farming will be avoided, remedied, or sufficiently mitigated. They provide the ability to consider all farm management practices that have the potential to adversely affect surface water and groundwater and manage these risks in an integrated way. This also enables the dairy farmer to progressively plan farm upgrades based on priority or, in the case of new farms, at the time of establishment. Water Quality Management Plans can be used to support applications for land use consent to convert the use of land to dairying. Nutrient Management Plans will be required as a means to demonstrate how nutrient inputs associated with dairy farming are to be managed to ensure any adverse effects on water quality will be avoided, remedied, or mitigated. Nutrient Management Plans should be written documents, incorporating a nutrient budget, developed by an accredited nutrient adviser using OVERSEER® or similar, that describes how the major plant nutrients (nitrogen, phosphorus, sulphur and potassium, and any other of importance to specialist crops) will be managed, including all sources of nutrient, for example discharges from farm dairy effluent systems, animal discharges, atmospheric nitrogen fixation.

Rules to control subdivision are considered a useful tool to ensure that lot sizes are appropriate to enable sustainable management of rural land that results in the retention of the life supporting capacity of the land and soil resource, allows for a range of future uses, retains the character and amenity values of the rural environment and minimises conflict between activities in rural areas.

Management Plans as part of resource consents for new dairy farm conversions will enable rural land to be used in such a way as to avoid adverse effects on water quality, while providing farmers the flexibility to manage their activity in a manner best suited to achieving the outcomes they are seeking.

Guidelines and education allow flexibility of approach to accommodate new information, changes in community perceptions, and take account of management systems and the needs of crop rotations. Farm environment awards both reward and educate farmers on environmentally sustainable farming practices.

Rules limit the use of rural resources to include those activities that are rural land based activities in nature, require a rural setting or are necessary to enable rural communities to provide for their social, cultural and economic wellbeing.

Drains and watercourses less than three metres in width are particularly prone to blocking with vegetation spreading from each bank. Control of riparian weed vegetation is essential to maintain the hydraulic effectiveness of such watercourses and drains.

One of the roles of the riparian management strategy is to investigate the appropriateness of existing riparian management detailed in this and other chapters and the rules contained in Volume Two of the Plan. If, following this investigation, changes to plan provisions are required then those changes will be pursued through the plan change process.

12.3 Rural Uplands

12.3.1 Issue

The continued use of the tussock grasslands for extensive pastoral farming has the potential if managed inappropriately, to adversely affect the life supporting capacity of the soil and the robustness and diversity of the indigenous fauna and flora of the Wairau/Awatere uplands.

For much of the land in the Plan area above 1000 metres, extensive pastoralism, historically was and still is the predominant land use activity. Its relative isolation and topographical and climatic limitations means that pastoralism is likely to remain the major land use activity well into the future. Much of the land is Crown owned and is in pastoral lease subject to private management.

A primary issue which concerns the management of these upland areas (and indeed most South Island uplands) is the need to protect communities of tall tussock grasslands and other significant indigenous flora and fauna and to limit erosion and general land degradation. There is considerable debate over the sustainability of grazing of tussock grasslands and the interaction with land degradation causal factors such as rabbit infestations and invasion by hieracium. Most parts of the rural uplands have experienced changes in vegetation from tall tussock lands into species such as

hieracium, briar and wilding pines, which reduce grazing and in some cases threaten ecological value.

Research and past experience shows that in some areas repeated summer burning and grazing may not be sustainable in the long term. This may be because areas transformed from tall tussock land to short tussock grasslands are much more vulnerable to invasion by rabbits and hieracium. Burning also results in a significant

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loss of nutrients and carbon from the soil, further depleting naturally skeletal upland soils. Exposure of the soils at higher altitudes as a result of burning practices has resulted in the past in large scale scree erosion, accelerating a naturally occurring process. It is acknowledged however that burning practices have dramatically decreased and conservation practices have assisted rehabilitation of tussock grasslands in recent years.

12.3.2 Objectives and Policies

Objective 1	**Sustaining the life supporting capacity of the soils of the rural uplands.**
Policy 1.1	To promote appropriate vegetative cover and implementation of land management practices which will improve or maintain soil organic matter and soil nutrient balance by retaining the soil and avoid accelerated soil loss through erosion.
Policy 1.2	To encourage land uses and land management practices which are appropriate for the high country environment.
Policy 1.3	To avoid, remedy or mitigate the adverse effects of burning practice within the upland environment.
Policy 1.4	To recognise the voluntary retirement of pastoral leases having high conservation or landscape values.

The objective seeks to ensure that rural uplands are managed in such a way as to sustain the life supporting capacity of the soil, including the maintenance of robust, diverse and intact vegetation cover.

The policies reflect the Council's concern that there may be some areas where the continuing loss of vegetation cover, through for example the spread of hieracium, may give rise to adverse environmental consequences. The Council believes that the maintenance of a healthy vegetative cover is essential to protect the soil in order to meet the reasonably foreseeable needs of future generations.

12.3.3 Issue

Reduction/damage to the ecological values of the upland environment.

The uplands often support large continuous natural areas and are home to areas of significant indigenous vegetation and habitats of significant indigenous fauna. Within these areas plant and animal diversity is unique. The widespread removal and modification of the original vegetation cover, easily eroded soil and rock types, slow recovery in the high altitude climate and major exotic biota and indigenous invasive weed and pest competition has produced widespread loss of habitat. Within this setting the areas of remaining forest and well developed shrubland and plant communities are ecologically important.

12.3.4 Objectives and Policies

Objective 1	**To recognise and protect the ecological values of the sensitive upland environment.**
Policy 1.1	To recognise and protect significant ecological and landscape values.
Policy 1.3	To discourage activities which involve extensive land disturbance.
Policy 1.4	To recognise the ecologically sensitive environment of the uplands which if disturbed (by activities such as land disturbance, fire, forestry, and inappropriate over grazing) can lead to soil erosion and habitat loss.
Policy 1.5	To encourage and facilitate the establishment of multi-agency Landcare Groups comprised as follows: • Landholders - one representative per Station/Run; • Marlborough District Council - one representative; • Department of Conservation - one representative; • Commission of Crown Land - one representative; • Others - specialist input as required; and • Iwi - one representative.
Policy 1.6	Manage pests according to a regional pest management strategy.

12.3.5 Methods of Implementation

Rules	Most land disturbance activities in the Wairau/Awatere uplands will require a resource consent which will enable close assessment of the potential effects.
Advocacy	The Council will support the voluntary retirement of pastoral leases where this will promote sustainable vegetation cover.
Monitoring	The Council will monitor trends in pest population and vegetation cover in the rural upland environment.
Self Regulation	Recognise, support and promote initiatives such as self regulation by resource users themselves, where those users have a track record of compliance with performance standards in the Plan. Investigate self regulation through approved environmental management systems, which may benefit resource users and the Council through reduced consent administration, within one year of this Plan becoming operative.
Education	Assist resource users to understand and implement the results of research into the effects of land use patterns and land management practices.

Pest Management	Maintenance of a Regional Pest Management Strategy.
Landcare Groups	The Council will encourage and facilitate the setting up of multi-agency Landcare Groups to develop Sustainable Land Management Guidelines (similar to industry Codes of Practice) for Upland Valleys and Catchments, and those stations identified in Appendix B. The primary purpose of the Landcare Groups shall be: • To develop, promote and set down agreed Sustainable Land Management Guidelines appropriate to the area in question; • To implement the agreed Guidelines within the defined Landcare Groups area; • To identify and agree the extent of protection required for areas of significant indigenous vegetation and significant habitats of indigenous fauna; • To identify and agree on methods for the sustainable management of areas of significant indigenous flora and fauna; • To identify and agree on methods of implementation to manage all resources within the Landcare Groups defined area in a sustainable manner; and • To comply with other relevant Council initiatives (e.g. The Regional Pest and Plant Management Strategies).
Rural Awards Programme	The Council will recognise environmentally sound farming practice by supporting the Marlborough Rural Environment Awards.
Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a Riparian Management Strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.

Generally the 1000m contour has been used as an indicative method to define high country and differentiate between Rural Uplands and General Rural. For the purpose of determining specific resource management issues however, it will be necessary to recognise that the circumstances relating to specific definitions may vary widely throughout the Plan area. The Council recognises that the sustainable management of land can not be solely achieved through regulation and believes that the establishment of Landcare Groups will allow more effective consideration of sustainable management issues, based on the actual characteristics of the land in question.

Sustainable management of rural uplands depends on the interaction between climate, relief and soil as well as land use activities. Rules can to some extent be used to control land use activities but by far and away the greatest change will come through increased awareness and sensitivity to the vulnerability of the high country environment. The Council believes that where Landcare Groups formalise and adhere to Sustainable Land Management Guidelines these may take precedence and obviate the requirement for Rules.

One of the roles of the Riparian Management Strategy is to investigate the appropriateness of existing riparian management detailed in this and other chapters

and the rules contained in Volume Two the Plan. If, following this investigation, changes to plan provisions are required then those changes will be pursued through the plan change process.

12.4 General Rural

12.4.1 Issue

The sustainable management of the extensive land areas given over to rural land uses below 1000 metres and not part of the intensively developed land of the lower Wairau Plain.

This area is distinguished by its vastness and relative isolation from major centres of population. The dominant and traditional land use remains pastoral farming producing wool and meat. However, in some areas pastoralism is experiencing pressures to change to forestry and horticultural activities as people seek alternative ways to provide for their economic and social well-being. The Plan seeks to enable a wide range of appropriate activities to establish in the General Rural area, subject to standards and controls to avoid or mitigate adverse effects on vegetation and soil resources, landscape and amenity values, and water quality.

Given the distance, isolation and in many cases the climatic constraints this area is unlikely to be subjected to intensive development of any form within the foreseeable future. Where developments (such as tourism) are likely to be one off events these ought to be able to be readily assimilated into the management area provided that attention is given to the avoidance, remediation or mitigation of any adverse effects on the environment.

12.4.2 Objectives and Policies

Objective 1	**Maintenance or enhancement of the life supporting capacity of the soils and the retention of primary production options for rural land.**
Policy 1.1	To promote appropriate vegetative cover and implementation of land management practices which will improve or maintain soil organic matter and soil nutrient balance by retaining the soil and avoid accelerated soil loss through erosion.
Policy 1.2	To encourage and assist in continued research to establish thresholds for sustainable soil conditions and vegetative cover.
Policy 1.3	To encourage land users to monitor the condition of vegetation on their land by providing information and assistance, where possible.
Policy 1.4	To ensure controls do not unnecessarily inhibit land use and management options that sustain the land and soil resources.
Policy 1.5	To encourage and facilitate the establishment of local groups such as land care groups, which promote and action policies and methods of sustainable land management.
Policy 1.6	Ensure that subdivision/development does not compromise existing primary production options.

Maintenance of soil quality depends largely on the maintenance of an appropriate continuous vegetation cover. Sustainable management of the soil resource has tangible benefits for the District. Stable and viable rural communities depend upon the implementation and maintenance of sustainable land use systems which retain soil quality, fertility and health.

Inappropriate subdivision and development can compromise primary production options in circumstances where there is a decrease in the availability of versatile soils for productive uses, or a reduction in existing primary production opportunities. These factors can be ascertained by the Council through the resource consent process.

Objective 2	**To provide for a range of activities which do not create an unacceptable working environment while avoiding, remedying or mitigating adverse effects on the environment.**
Policy 2.1	To limit the scale of subdivision and dwellings for rural purposes to the creation of lots which retain the amenity values of openness, and minimise the potential conflicts between residential and neighbouring rural activities.
Policy 2.2	To enable rural activities which might generate adverse effects such as noise or smell, to operate in rural areas in accordance with accepted practices, without being significantly compromised by other activities demanding higher levels of amenity.
Policy 2.3	To identify existing rural residential locations within the Rural 4 Zone and to acknowledge the demand for rural lifestyle allotments whilst taking into account potential adverse effects, particularly on rural amenities and on the sustainable management of the land resource, of the Rural 4 Zone.
Policy 2.4	To avoid, remedy or mitigate the effects of activities that can cause unpleasant living or working conditions for people in the rural community, or that cause other significant adverse effects on the environment.
Policy 2.5	To ensure that the location, scale and nature, design and management of industrial, commercial or rural intensive activities are such as to protect the amenity values of rural areas.

A wide range of activities occur in rural areas, including viticulture, traditional livestock farming and the farming of supplementary crops, as well as more intensive pastoral and horticultural enterprises. Low density residential development has also spread throughout rural areas.

People have differing expectations about what are acceptable amenity levels in the rural environment. Amenity means how noise levels, odour strength, air quality and visual appearance relate to the overall nature of the rural environment. The inherent nature of land based productive activities, means that intermittently high noise levels will be produced when agricultural machinery is being used, stock is being moved or held, or crop protection mechanisms are activated. These activities may also result in increased odour levels and reduced air quality.

Therefore, current amenity levels in the rural areas of Marlborough are characterised by fluctuations in amenity because of both routine and seasonal land based primary production management practices. These fluctuations should be accepted as anticipated components of rural amenity values, particularly by those choosing to live in rural areas. This does not mean that the duty under Section 17 of the RMA to avoid, remedy or mitigate the adverse effects of activities is removed.

The policies seek generally to enable established rural land uses and associated management practices to continue to operate sustainably in rural areas, so long as the effects from these uses do not constitute a general nuisance or health risk. The Plan sets out the expected amenity levels for rural areas to protect human health and safety. This should ensure that the potential for reverse sensitivity conflicts between the expectations of rural residents and those undertaking rural land uses are avoided, as far as possible.

Objective 3	**Manage the land resource and associated waste discharges in such a way as to protect the life supporting capacity of the soils; and surface, ground and coastal water quality and quantity (consistent with the human consumption of groundwater and fish from surface waters); water contact recreation; and the maintenance of the natural and scenic values of the water resources and their associated ecosystems.**
Policy 3.1	To encourage the efficient use of water, thereby conserving both water quantity and quality.
Policy 3.2	To avoid, remedy or mitigate the adverse effects of discharges on the life supporting capacity of soils and water quality. The Deferred Township Residential Zone at Rarangi will only develop when a permanent potable water supply has been installed and service connection made to all properties in both the Deferred Township Residential Zone and the Township Residential Zone.
Policy 3.3	To safeguard the natural character and nature conservation values of the riparian margins and associated ecosystems.
Policy 3.4	To ensure that regard is given to the effect of activities on water quality, water yields and the water requirements of indigenous ecosystems, when considering resource consents.
Policy 3.5	To manage land use activities in a manner that avoids, remedies or mitigates the contamination or sedimentation of surface water bodies.
Policy 3.6	Require land use consent for the establishment and operation of any new dairy farm
Policy 3.7	Approve land use consent applications for new dairy farms where the proposed farming would have no more than minor adverse effects on ground, surface, and coastal water quality, or wetland. A land use consent application must identify the risks of new dairy farming and provide measures to address those risks, including as a minimum:

(a) Measures, including fencing, bridges or culverts, to prevent stock entering onto, or passing across, the bed of any river, stream, creek, lake, wetland or significant ephemeral stream, and any drain;

(b) Provision of an appropriate, non-grazed, buffer along the margins of any water body, including a river, stream, creek, lake, wetland or significant ephemeral stream, and any drain, to intercept the runoff of contaminants from grazed pasture, with reference to Appendices A, J and Q;

(c) Provision for storage of dairy effluent, with all storage ponds sufficiently sized to enable deferral of application to land until soil conditions are such that surface runoff and/or drainage do not occur;

(d) Demonstration of appropriate separation distances between effluent storage ponds and any surface waterbodies to ensure contamination of water does not occur (including during flood events);

(e) A nutrient management plan that includes nutrient inputs from dairy effluent, animal discharges, fertiliser, and any other nutrient input.

The quality and quantity of the District's water resources are essential to the prosperity and pleasantness of the District, in terms of their life supporting capacity; their availability for domestic and productive use; and their integral part in the recreation and tourism values of the District. Efficient use of this water is essential to safeguard the quality and quantity of water for future generations.

12.4.3 Methods of Implementation

Zoning	Represent the Rural area by way of Rural 4 Zoning. Expansion to Ward and Seddon, which may result if the Clifford Bay ferry terminal proceeds, will be examined by way of a resource study which would be implemented through the plan change process.
Rules	Plan rules will provide for activities and a zoning pattern on the basis of their effects on the sustainable management of the rural area generally. Plan rules will provide water quality standards and controls on discharges. Plan rules will provide water allocation mechanisms. Subdivisional controls will be applied to ensure that rural amenities will be protected. Land disturbance rules will provide for control of sediment and debris in rivers and watercourses. Vegetation clearance rules will control vegetation and habitat disturbance.

Research	Conduct research into land management practices that sustain the District's soil resource.
Riparian Margins	The Council will develop, in consultation with all relevant parties a schedule of rivers and relevant riparian margins.
Management Plans	Prepare soil conservation management plans for areas badly affected by soil erosion (e.g. Wither Hills). Water Quality Management Plans will be required as a means of demonstrating on an ongoing basis that any adverse effects on water quality resulting from dairy farming will be avoided, remedied, or sufficiently mitigated. They provide the ability to consider all farm management practices that have the potential to adversely affect surface water and groundwater and manage these risks in an integrated way. This also enables the dairy farmer to progressively plan farm upgrades based on priority or, in the case of new farms, at the time of establishment. Water Quality Management Plans can be used to support applications for land use consent to convert the use of land to dairying. Nutrient Management Plans will be required as a means to demonstrate how nutrient inputs associated with dairy farming are to be managed to ensure any adverse effects on water quality will be avoided, remedied, or mitigated. Nutrient Management Plans should be written documents that incorporating a nutrient budget developed by an accredited nutrient adviser using OVERSEER® or similar, that describes how the major plant nutrients (nitrogen, phosphorus, sulphur and potassium, and any other of importance to specialist crops) will be managed, including all sources of nutrient, for example discharges from farm dairy effluent systems, animal discharges, atmospheric nitrogen fixation.
Monitoring	Monitor the effects of land use activities on ground and surface water.
Self Regulation	Recognise, support and promote initiatives such as self regulation by resource users themselves, where those users have a track record of compliance with performance standards in the Plan. Investigate self regulation through approved environmental management systems, which may benefit resource users and the Council through reduced consent administration, within one year of this Plan becoming operative.
Rural Awards Programme	The Council will recognise environmentally sound farming practice by supporting the Marlborough Rural Environment Awards.
Promotion and Guidelines	The Council will encourage the establishment of Landcare and other similar groups.
Education	The Council will assist resource users to understand and implement the results of research into the effects of land use patterns and land management practices.

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Riparian Management Strategy	The Council will prepare, in consultation with relevant parties, a Riparian Management Strategy to provide further guidance on the appropriate management of riparian margins so that their habitat, water quality, amenity and public access benefits are recognised and enhanced.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume One the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

12.5 Rural Residential (residential activity in the rural environment)

12.5.1 Issue

Accommodating rural residential living in a manner that does not result in incompatible activities in the rural environment.

Any residential development extending into the rural area may bring potential residents into closer contact with landuse activities such as viticulture, orchards, intensive livestock operations, forestry or rural industries. Adverse effects can include smell, noise, spray drift or in the case of forestry, fire risk and fire hazard.

Rural activities which are legitimately established should not be expected to relocate to accommodate residential activity. Residential activities should only be permitted to establish where clear steps have been taken to mitigate any adverse effects. The onus is clearly on the developer to ensure that a situation of conflict between the residential activity and the legitimate rural activity does not arise.

Existing rural residential areas in the Wairau/Awatere area such as at Rarangi have been given a rural residential zoning. New locations will be considered where it can be demonstrated that there will be no adverse effect on existing legitimate rural activities and where public health concerns (such as sewage disposal), water availability and water quality issues have been addressed, along with factors involving ecology, landscape, land stability, inundation and drainage and transport.

Although there is a duty under Section 17 of the Act to avoid, remedy or mitigate any adverse effects, the Council recognises that the principal rural activities inherently involve effects that may not meet the expectations of an urban environment. Urban activities at the rural/urban interface must expect to compromise their urban amenity expectations where there are justifiable and reasonable effects as a result of primary production activities in the rural environment.

12.5.2 Objectives and Policies

Objective 1	**To adequately provide within the rural zones for a range of persons wishing to live in the rural areas without placing undue demands on existing facilities in the rural areas and without inhibiting or diminishing the life supporting capacity of the soil or the primary productive capacity of the land.**
Policy 1.1	To prevent the establishment of rural residential development which exacerbates conflicts between rural uses and residential activity.
Policy 1.2	Where proposals are received for rural residential developments, preference will be given to locations that minimise the loss of productive soils.
Policy 1.3	To provide a specific zone for rural-residential activities, and also provide flexibility within the Rural 4 Zone for part-time or hobby farming uses and intensive farming on small lots.
Policy 1.4	Ensure that rural residential developments do not result in a demand for or an extension of urban services.
Policy 1.5	Ensure that rural residential developments make adequate provision for sewage and stormwater disposal. The Deferred Township Residential Zone at Rarangi will only develop when a permanent potable water supply has been installed and service connection made to all properties in both the Deferred Township Residential Zone and the Township Residential Zone.
Policy 1.6	To ensure that when development occurs the full costs of remedying or mitigating adverse effects on the environment are met.
Policy 1.7	To take into account the cumulative adverse effects of rural residential development proposals on the environmental and conservation values of rural areas.
Policy 1.8	Further residential development, outside those areas already zoned for residential purposes, shall be assessed against the following matters: • The need to avoid sprawling or sporadic subdivision, use or development in the coastal environment; • The effects of changes in land use from rural to residential on the natural character of the coastal environment; • The likely exposure to natural hazards; • The need to protect coastal ecosystems that are vulnerable to modification; and • The contribution that the area makes to the amenity values found in the coastal environment.

The Council believes that it is appropriate to provide for people to live throughout rural areas provided that any adverse effects of the development on the rural environment have been avoided or suitably mitigated.

12.5.3 Methods of Implementation

Zoning	Zones will identify existing rural residential areas.
Rules	Rules will be used to ensure conflicts are minimised between residential and rural activities. Rules will establish minimum environmental standards.
Plan Changes	New localities will be accommodated through plan change procedures.

Zoning and rules are the appropriate method of recognising existing developments. The Council does not believe that it should predetermine the location of new localities, rather that applications be guided through plan change procedures assessed on merit and guided by the objectives and policies of this Plan.

12.6 Skifield Area

12.6.1 Issue

Managing the effects of skifield activity in a sensitive alpine environment.

The Rainbow Skifield is located high in the St Arnaud Range close to the District boundary above the Wairau River. It is acknowledged that the substantial site development has left the terrain in a highly modified state.

The land is owned by the Crown and managed by the Department of Conservation under the Conservation Act 1987.

The skifield and access road have been developed and continue to develop under a licence from the Department of Conservation.

The Rainbow Skifield is the only commercial skifield in the north of the South Island. It is an important recreation/tourism attraction for Marlborough and the adjacent Nelson area, with the potential for further expansion.

In recognition of the unique use of this sensitive area the Rainbow Skifield area has a specific skifield zoning.

The area included in the Skifield Zone is sensitive for a number of reasons. It is an area of high landscape and ecological importance with only limited ability to absorb change and development. It is also a highly unstable area as erosion potential and soil/slope instability is very high.

The development of the skifield is recognised as having modified this sensitive environment. The Department of Conservation has an important role ensuring the continuing integration of the commercial operation, including any intended expansion or upgrading of facilities, in a sustainable manner.

12.6.2 Objectives and Policies

Objective 1	**To accommodate the sustainable development of the Rainbow Ski Area in a way that recognises the sensitive alpine environment in which it is located.**
Policy 1.1	Protect the predominantly natural alpine character of the skifield area.
Policy 1.2	Avoid, remedy or mitigate any adverse effects of skifield activities on any areas of indigenous vegetation or any habitats of indigenous fauna.
Policy 1.3	Ensure that any structures, buildings or earthwork activities do not significantly impact on landscape or visual values.
Policy 1.4	Ensure that land disturbance activities, in particular excavation and filling, are carried out in a manner which avoids, remedies or mitigates any adverse effects.
Policy 1.5	Avoid, remedy, or mitigate the adverse effects of solid, effluent and stormwater waste within the skifield area.
Policy 1.6	Safeguard the natural functioning of freshwater ecosystems, including tarns, from the effects of skifield management, including snowmaking.
Policy 1.7	Ensure that the discharge of water and ice nucleating additives for snowmaking purposes avoids, remedies or mitigates any adverse effects when eventually discharged to waterbodies.
Policy 1.8	Ensure that any discharge to watercourses from upgraded toilet facilities, avoids, remedies or mitigates any adverse effects.

The objective and policies aim to ensure that the skifield continues to develop in a manner which is appropriate within the environment in which it is located. Any adverse effects generated by the skifield operation must be avoided, remedied or mitigated.

12.6.3 Methods of Implementation

Zoning	The Skifield Zone is identified on the planning maps, incorporating both the area used for skifield activity and the access road to the field.
Rules	Rules permit skifield activity including the construction of skifield facilities and transportation systems subject to performance conditions. Rules require resource consents for effluent and stormwater disposal in order to ensure that any adverse effects on the sensitive mountain environment of such discharges are avoided, remedied or mitigated.

	A resource consent for land disturbance activities, such as excavation for roads and tracks, is generally required due to the Class VIII land use capability classification of the skifield area. Further rules are used to prohibit the disposal of any solid waste material within the Skifield Zone.
Monitoring	The Council will monitor, and require the skifield operator to monitor, the effects of skifield activity, including the effects of discharges.

The Council recognises the importance of the Rainbow Ski Area in terms of its recreation/tourism role. The skifield is located within a sensitive alpine environment and is managed as conservation land by the Department of Conservation. Management of the skifield area must also be consistent with the underlying status of this land. The Plan acknowledges the importance of skifield activities as well as the sensitivity of the surrounding environment by specifically identifying the area used by the skifield and providing it with a specific zone to ensure that the adverse effects are appropriately managed. The associated rules are constructed accordingly.

12.7 Airport Zone

12.7.1 Issue

Recognition of the need for and importance of national, regional, and local air facilities, and providing for them, whilst avoiding, remedying or mitigating any adverse effects of airport activities on surrounding areas.

National access to the District for both passengers and freight is provided by Marlborough Airport, with the smaller Picton Airport and Omaka Airfield catering for more localised air traffic. Picton Airport (situated at Koromiko) operates daily commercial commuting flights to and from Wellington. Omaka Airfield lies on the south-western corner of Blenheim, to the west of the Taylor River, and caters for private air traffic, crop spraying, recreational flying, skydiving and gliding, generating a steady level of take-off and landing activity.

Marlborough Airport is situated at the Royal New Zealand Air Force Base Woodbourne, mid-way between Blenheim and Renwick. The modern, quality terminal facilities provide an attractive and important gateway for the travellers arrival in Marlborough District, be it on business or increasingly on holiday as the district's attractiveness as a tourist destination is consolidated. The maintenance and enhancement of this gateway area is therefore a matter of importance, and further improvements and developments must be pursued with sensitivity.

Marlborough Airport occupies an area within Royal New Zealand Air Force Base Woodbourne and shares use of the runway facilities. This combined civilian and military activity means that the airport could be required to operate on a continual basis.

Each of the air facilities has the potential to cause significant environmental effects including traffic generation, chemical/fuel hazard, landscape impact, and most significantly, noise pollution. The operational efficiency and functioning of Marlborough Airport, Base Woodbourne, and Omaka Airfield requires continual on-site maintenance and servicing of aircraft, often associated with significant noise

generation (engine testing in particular). It is essential for the continued development of industry, commerce and tourism activity in the District that a high level of air transport access is maintained. Performance standards will be applied to all activities within airport areas to avoid, remedy, or mitigate adverse effects. Likewise the sustainability of the airport is also dependent on not being penalised by the encroachment of activities which are by their very nature sensitive to noise for normal airport operations.

12.7.2 Objectives and Policies

Objective 1	**The effective, efficient and safe operation of the District's airport facilities.**
Policy 1.1	To provide protection of air corridors for aircraft using Marlborough, Omaka, and Picton Airports through height and use restrictions.
Policy 1.2	To establish maximum acceptable levels of aircraft noise exposure around Marlborough Airport and Omaka Aerodrome for the protection of community health and amenity values whilst recognising the need to operate the airport efficiently and provide for its reasonable growth.
Policy 1.3	To protect airport operations from the effects of noise sensitive activities.

It is critical in safety terms to provide for protection of the air corridors used to approach and leave the airports. Certain air spaces have been defined around Blenheim for flight paths for planes approaching and leaving airfields. Height restrictions and land use controls are required to ensure these flight paths remain clear from such obstructions as trees, aerials, or concentrations of birds as may be associated with landfill sites, or bodies of open water.

It is necessary to protect the operation of the airports from outside uses in order that they can function effectively and safely whilst protecting outside uses from the noise and related activity associated with the airport. Residential and similar developments in the vicinity of the airports potentially subjects residents to adverse noise impacts. Noise "buffers" surrounding the airport are considered the most effective means of protecting their operation.

12.7.3 Methods of Implementation

Zoning	Represent the airports as Airport Zones.
Rules	Plan rules provide for the continued development, improvement and operation of the airports subject to measures to avoid remedy or mitigate any adverse effects. Rules define the extent of the airport protection corridors through height and surrounding land use restrictions. Plan rules will, within an area determined with reference to the 55 Ldn noise contour (surveyed in accordance with NZS 6805 "Airport Noise Management and Land Use Planning"), require activities to be screened through the resource consent process and where permitted to establish noise attenuation will be required.

Performance Conditions	Conditions are included to protect surrounding residential land uses from excessive noise.

The above methods are required to ensure the effective, efficient, and safe operation of the District's airport facilities, whilst minimising any adverse effects on surrounding areas.

12.8 Lake Grassmere Salt Works Area

12.8.1 Issue

The sustainable management of the existing environment of Lake Grassmere, its surrounds and adjacent waters of Clifford Bay whilst enabling solar salt production of Lake Grassmere.

Lake Grassmere has been used since 1943 for the solar production of salt. The ability to produce solar salt at Lake Grassmere arises from low rainfall, high sunshine hours, strong drying winds during the summer months, generally from the north-westerly direction, a large area of flat terrain with impervious soils located close to the coast, unimpeded access to sea water and ready access to transport facilities. While these factors are important, the production of solar salt is difficult and it must be carefully managed.

Approximately 50% of New Zealand's annual salt consumption and specialist high grade salt is produced from Lake Grassmere and exported. The operations are unique in New Zealand, while some of the methods used to produce the solar salt are unique in the world. It is because of this uniqueness, its importance nationally, regionally and to the district, that special provision for the salt works is made in the Plan.

Sea water (coastal water under the Resource Management Act 1991) is pumped into the Lake and then through a series of concentrating ponds as it increases in strength. Salt is finally deposited on the bottom of the crystallising ponds in summer and harvesting usually begins by early March.

Solar salt production is adversely affected by rain storm events. Production can also be adversely affected by dust and air-borne contaminants and the possibility of contaminants in stormwater from adjacent sealed roads and farmland. These adverse effects are mitigated to an acceptable level by careful management of the stormwater in three ways:

- A dedicated system of canals for stormwater extending generally northwest, north and east from the Cattle Creek rail bridge around the western, northern and eastern periphery of the property;
- Decanting rainwater off the top of the crystallising and deep storage ponds, either to the main lake area or disposal via the stormwater canals; and
- Management of the inflow of stormwater via creeks and drains into the main lake.

In extreme storm conditions (twice in the last 45 years) it has been necessary to cut a temporary outfall through the sand dunes and gravel beach about 100 metres south of the sea water intake to allow the excess stormwater to escape.

A variety of storage and processing facilities on the property is associated with the harvest of solar produced salt from the crystallising ponds. Salt is stockpiled in large

mounds up to 18 metres high and from there is processed to cleaned bagged product or refined and processed to specific end products.

The solar production of salt does have the potential to cause significant environmental effects. In particular, those with the potential to become issues on surrounding rural land include dust, noise, soil contamination and wind borne salt foam. Performance standards will be applied to avoid, remedy or mitigate these adverse effects and on the salt works operation generally.

12.8.2 Objectives and Policies

Objective 1	**To enable the production of solar salt at Lake Grassmere in a sustainable manner.**
Policy 1.1	Recognise the national, regional and district significance of the salt works operation.
Policy 1.2	Enable the continuation of the salt works operation provided that any adverse effects on the environment are avoided, remedied or mitigated.
Policy 1.3	Ensure appropriate measures are in place to avoid the potential for cross boundary effects.
Policy 1.4	Encourage the establishment of a Landcare Group comprising residents, iwi, Department of Conservation and the Salt Works Company to manage the boundary area of the Zone.
Policy 1.5	Activities in the coastal marine area will be required to meet standards that will maintain the quality of coastal water at Class NS within 1km radius of the coastal water intake existing at 30 May 2002.

12.8.3 Methods of Implementation

Zoning	The Lake Grassmere Salt Works Zone is identified on the planning maps and includes the Lake itself, an administration, workshop, salt refining and processing area, and a Pipeline Extension Corridor in the coastal marine area.
Rules	Rules permit the solar production of salt and associated by-products and the full range of processes required, subject to standards and conditions. Rules require resource consents for certain discharges to air, excavation of land, land based aquaculture and activities in the coastal marine area. Resource consents are also required for activities associated with management of salt water intrusion into Cattle Creek and to manage stormwater entering Lake Grassmere.
Performance Conditions	Conditions are included to protect surrounding rural land uses from excessive noise, soil contamination, dust and wind borne salt foam.

Landcare Group	The Council will encourage the establishment of a Landcare Group with membership from residents, iwi, the Department of Conservation and the Salt Works company.

The Council recognises the importance of the Lake Grassmere Salt Works in terms of its national, regional and district significance. The Council has therefore specifically identified the area used by the salt works operation and provided it with a zone to allow for its continued operation.

The salt works situation is unique in New Zealand. It also presents the advantage that the bulk of the activities contemplated are already established. They can be seen and have been seen in operation. Because of this circumstance, although the proposed provisions break new ground, a degree of permissiveness (enablement) has been incorporated into the rules regime, where established activities are environmentally of low impact, e.g. seawater (coastal water) take. Conversely, rules of a more limiting status have been applied to the likes of anticipated aquaculture activities and associated practices, where a level of precaution is warranted. This approach is consistent with Part II of the Act, in that it recognises "sustainable management" and accords with the Act's purpose.

The Council considers that the establishment of a Landcare Group or similar would be of benefit to those with interests in the area, particularly in terms of the continued management of the effects of the salt works operation at the boundary of the Zone.

12.9 Anticipated Environmental Results

- The sustainable management of the life supporting capacity of the versatile soils of the Wairau/Awatere;
- Sustainable management and enhancement of the life supporting capacity of the soils, including a robust, diverse and intact vegetation cover;
- Environmentally sound farming practices based on:
  - Strategies enhancing, maintaining and restoring soil structure and fertility, and minimising soil erosion;
  - Strategies enhancing efficiency in the use of energy, water fertiliser and pesticide inputs; and
  - The use of systems for the sustainable management of weeds, pests and diseases.
  - Strategies avoiding, remedying, and mitigating adverse effects of land use activities on water quality;
- A level of spaciousness and openness in the rural areas, which enables the undertaking of a wide range of rural land uses and land management practices without increasing the potential for loss of amenity values or conflict between activities;
- Land uses and land management practices which do not create unacceptable or significant conflict with neighbouring land based activities, including adjoining urban areas;
- Maintenance of a level of rural amenity, including privacy, rural outlook, spaciousness, ease of access and quietness, consistent with the range of permitted activities in the rural zones;

- Retention of the amenities, quality and character of the different rural environments within the Plan area;
- Consolidation of commercial, service and industrial activities in settlements, except where these activities need to be close to particular resources in rural areas, or when it is unsuitable for these activities to locate in urban or township areas;
- Development of a range of viticultural based activities including associated commercial, industrial and service activities;
- Maintenance of the landscape values including spaciousness, outstanding landforms, extensive indigenous vegetation cover, and views and panoramas;
- Retention of the indigenous bio-diversity of the Wairau/Awatere and its remaining indigenous ecosystem functioning;
- The sustainable management of the resources within the defined areas of Landcare Groups;
- The protection and conservation of areas of significant indigenous flora and fauna;
- Protection of riverbeds and associated lake and wetland habitats for birdlife and fish;
- Water quality consistent with protecting the safe human consumption of groundwater and fish from surface waters, safe water contact recreation, and protection of the natural and scenic values of the water resources;
- Retention of a wide range of recreation opportunities;
- Avoidance of loss of property or danger to people from natural hazards;
- Retention of clear distinctive urban area boundaries;
- Efficient access to properties without interfering with the safe and efficient functioning of adjacent roads;
- Future development and consolidation of the Rainbow Ski Area, in a manner which avoids, or mitigates any adverse effects to their locality or the wider environs;
- The effective, efficient and safe operation of the airport facilities;
- Airport activities carried out in a way which avoids or mitigates adverse effects on the environment;
- Minimal noise nuisance from airport activities on nearby residents;
- Enable the continued operation of the solar production of salt at Lake Grassmere in a manner, which avoids, remedies or mitigates any adverse effects on the locality or the wider environment; and
- Retention of primary production options on the Wairau Plain.

13.0 Open Space/Recreation

13.1 Introduction

The management of reserve land in terms of Resource Management Act (the Act) requirements (ie, sustainable management) is the subject of this section of the Plan. Integrated management of the resources contained within reserve land comes under the control of the Conservation Act 1987 and the Reserves Act 1977. The general intent of this Plan is not to repeat management processes but to only pick up those matters requiring control under the Act which are not covered under other legislation.

Generally the types of activities and consequently the acceptable effects within a reserve are those indicated by management plans under the above legislation. (For example, in the case of Department of Conservation land, the Conservation Management Strategy for the Nelson/Marlborough Conservancy.) This Plan seeks to provide for these activities while managing adverse effects. The Plan therefore only looks at the management of:

- Any off-site effects of land uses, extending beyond the boundary of the reserve area;
- Significant on-site effects of activities such as discharges, water takes, and disturbance to the beds of lakes and rivers; and
- The effects on reserve values of activities on neighbouring lands.

Open space and recreation areas serve a wide variety of functions within the Wairau/Awatere area. Most areas of reserve and publicly owned land fulfil one or more of the functions outlined below:

- Visual amenity (e.g. gardens, areas of indigenous vegetation, landscape views);
- Children's play (e.g. playground equipment, neighbourhood parks);
- Active sports (e.g. team sports, physical fitness, water sports, golf, tramping);
- Passive use of open space (e.g. picnicking);
- Access (e.g. especially to the coast, waterways and the high country);
- Linkages (e.g. walking tracks, cycleways);
- Built facilities (e.g. halls, clubrooms, pre-schools, swimming pools, libraries);
- Historic sites and features;
- Conservation (e.g. ecological values, water margins, wetland, indigenous habitats, fauna and flora);
- Public utilities (e.g. toilets, reticulated services);
- Commercial opportunities (e.g. rafting, four wheel drive tours).

Open space varies in terms of its significance to residents and visitors. Some areas will have only local significance while others will assume regional, national or even international significance.

Recreational trends and preferences are continually changing. Aside from recreational preferences which are reflected in the existing provision for reserves there are some distinct trends which are of note:

- Increased usage of the outdoors involving interaction with the 'natural environment' and often adventure orientated such as skydiving, mountain biking, rafting, kayaking and passive activities such as hiking and walking;
- A trend for working parents to use recreational activities close to home, reflecting their lack of available time.

13.2 Issue

The accessibility and distribution of a variety of land and facilities for open space and recreation.

The accessibility and therefore distribution of open space and recreational facilities around the District is important.

With respect to local parks, distribution is especially important as these areas are used particularly by the less mobile sectors of the community: young children and the elderly. Sports areas also need to be accessible, even though it is recognised that part of the organised sport experience involves travelling to different areas of the District to compete.

13.2.1 Objective and Policies

Objective 1	**Open spaces and recreational facilities that are equitably distributed and conveniently located throughout the District.**
Policy 1.1	To identify those areas of the District where there are, or likely to be, deficiencies in the provision of open space and recreational facilities and provide or facilitate accordingly.
Policy 1.2	To provide for new open spaces and recreational facilities to establish in locations that are convenient and accessible to users.
Policy 1.3	To require contributions towards the provision of public open space and recreation areas from subdivision and/or development for: • Residential purposes to provide additional local and district parks; and, • Business purposes to provide additional open space to enhance amenity values and meet the leisure requirements of workers in and visitors to business areas.
Policy 1.4	To use cash contributions towards public open space and recreation areas received from subdivision and/or development where appropriate to: • Purchase land for district parks and sports fields; • Purchase land for local neighbourhood parks in areas where there are existing or potential deficiencies in the provision of local parks; • Develop land purchased or acquired as reserve contributions to a useable state for local and district open space; and,

	• Purchase and develop land for amenity purposes within or adjoining business areas.
Policy 1.5	To take land instead of a cash contribution towards providing public open space and recreation areas from subdivision and/or development, where this will add to the quality and diversity of open spaces and recreation areas in the District.
Policy 1.6	To recognise the contribution of existing areas of open space, including private open space.
Policy 1.7	To recognise and make plan provision for the operation of large scale private open spaces and recreational facilities.

The objective is specifically concerned with the issue of accessibility and distribution of open spaces and recreational facilities. An equitable distribution is important in achieving convenience of access to open space and recreational opportunities, recognising the particular role or function of the open space or recreational facility in meeting the differing needs of the community. The policies are designed to ensure that accessibility and distribution are matched to population need and reflect trends in leisure time activities.

Objective 2	**To seek diversity in the type and size of open spaces and recreational facilities to meet local, district, regional and nationwide needs.**
Policy 2.1	To develop or facilitate the development of urban, regional or national open space and recreational facilities.
Policy 2.2	To develop or facilitate a range of open space types and recreation facilities.

This objective deals specifically with the provision of different types and sizes of open spaces and recreational facilities throughout the District. The range of types includes neighbourhood (local reserves), sports fields (district reserves), walkways, indoor sports facilities, swimming pools and other recreation facilities. This aspect relates to need in terms of age, specialised interest and ability rather than locational matters. The policy framework is reflecting the existing and potential recreation opportunities which exist in the District.

Objective 3	**To recognise the role of reserves and covenanted areas in protecting and enhancing the natural environment.**
Policy 3.1	To support the establishment of open space reserves and covenants to maintain and enhance the District's conservation values
Policy 3.2	To maintain and develop the reserve system to provide 'green linkages' throughout the District.
Policy 3.3	To enhance the role of the District's fresh and coastal water resources and their margins for conservation and environmentally compatible recreational uses

Policy 3.4	To develop and manage the recreational use of the surface and margins of the District's wetlands, lakes rivers in a way that does not adversely affect their natural, ecological and existing recreational values and, where applicable, their flood management function.
Policy 3.5	Protect the flora, fauna and natural character of open space areas through appropriate control of activities in and adjoining covenanted and reserve areas.

Reserves provide a positive opportunity to preserve areas of natural environment and enhance appreciation of conservation values. There is a strong relationship between this section and the objectives and policies relating to natural character, water, flora and fauna, coastal marine, landscape, and subdivision

13.3 Issue

Adverse environmental effects arising from recreational activities.

In undertaking recreational and reserve management activities consideration is required to be given to the avoidance, remediation or mitigation of adverse effects on the environment as well as the minimisation of conflicts between different recreational activities and other activities. These can include pest control for ecological management purposes, the scale of buildings and the effects of intensive use and carparking, (for example), or the competition for space between exclusive use sports and the general public.

13.3.1 Objectives and Policies

Objective 1	**That the establishment or development of open space and recreational facilities is undertaken in a manner which enables adverse effects on the environment to be avoided, remedied, or mitigated.**
Policy 1.1	To ensure that activities associated with open space and recreational facilities do not give rise to adverse environmental effects (e.g. excessive noise, glare, visual detraction) without separation or mitigation measures being employed.
Policy 1.2	To ensure that building development in association with open space and recreational facilities maintains or enhances the amenity values present in the locality.
Policy 1.3	To ensure that the development and use of open space and recreational facilities does not detract from the operational efficiency and safety of the roading network, or amenity values of adjoining streets.

Activities associated with open space and recreational facilities can have adverse environmental effects. Open spaces and recreational facilities occur throughout the Wairau/Awatere, although often they are located within living areas. Equally varied are the types of activities associated with these areas and consequently the potential to generate a range of adverse effects.

Potential adverse effects include noise resulting from recreational activity and the social activity of clubrooms and their hours of operation; glare, particularly from flood lighting; attraction of increased numbers of people and vehicles into an area; the impacts of building scale or shading of adjoining properties; and damage to vegetation including trees, waterways or sensitive habitats upon development.

The Plan therefore, includes standards to minimise adverse effects on amenity values, recognising that maintenance and enhancement of these values is an important part of managing the natural and physical resources of an area.

13.4 Methods of Implementation

Zoning	The Plan identifies on the planning maps the following open space zones: • Conservation; • District Recreation; and • Local Recreation.
Rules	Plan rules permit appropriate activities based on the conservation, amenity, recreation, or landscape value associated with the particular reserve or type of reserve, subject to performance standards where these are necessary.
Performance Standards	Performance standards address matters which ensure that open space is used and developed in a manner which is compatible with the amenities of adjoining residential areas. Matters include noise, car parking, building setback and discharge standards.
Other Legislation	Management plans prepared under the Conservation and Reserves Acts have been used as the basis for Permitted Activities in the three open space zones. (Resource Management and Regulatory Department) will participate in the preparation and planning of relevant reserve management plans under the Conservation and Reserves Acts, in pursuit of achieving the objectives of this (and other relevant) section(s) of this Plan.
Other Methods	Preparation of a Reserves Management Strategy. Negotiation of leases and licences with individual organisations and businesses to manage and maintain facilities. Facilitating public participation in design, development and management of recreational facilities.

The methods provide for the policies above and enable relevant authorities to administer open space activities as set out in management plans.

13.5 Anticipated Environmental Results

Implementation of the policies and methods in relation to open spaces will result in:

- Maintenance of the characteristics which ensure that these open spaces remain highly valued by the community in terms of particular conservation, recreation, and/or landscape values;
- Minimisation of possible conflicts between different types of recreational activities;
- Public involvement in determining the 'quality' of public open space and recreational facilities and awareness of the opportunities they provide;
- Protection and enhancement of natural, cultural and scenic values, and of the District's general level of amenity;
- Recognition and appreciation of natural heritage values and conservation of indigenous vegetation remnants, freshwater and coastal habitats, where appropriate;
- Visual compatibility of open spaces and recreational facilities with their surrounding local area;
- Maintenance of the open character of open space as a visual contrast to urban development;
- Compatibility of activities associated with open space and recreational facilities with activities in the surrounding local area;
- Maintenance and enhancement of local amenity values;
- Conservation of the character of public recreation areas and areas of open space; and
- Protection of the operational efficiency and safety of the roading network and of the amenity value of streets.

14.0 Land Disturbance

14.1 Introduction

Much of the Wairau/Awatere Plan area is hilly and mountainous. Large areas of the hill and mountain country is extremely eroded or vulnerable to the effects of land disturbance activities. Land clearance and earthworks such as burning, crushing, logging and tracking can increase the volumes of sediments and nutrients entering the waterways and increase the amount of debris in streams. If poorly managed these processes can make land even more erosion prone. The Marlborough District has previously had land disturbance controls in place. Firstly under the Soil and Rivers Control Act of 1941 (and subsequent amendments), and more recently a Land Disturbance Regional Plan introduced and made operative by the Marlborough District Council in April 1995. The fundamentals of that Land Disturbance Plan have been incorporated into this Plan and form the basis of the land disturbance objectives, policies, methods and rules contained herein.

14.2 Issue

The potential for land disturbance activities to reduce land production potential, damage the natural and cultural values of the land, or increase likelihood of erosion, flooding or deposition in water.

14.2.1 Effects of Sediments

Soil that has been exposed by vegetation clearance is more exposed to rain, wind and frost. If at the same time, it has been loosened by cultivation or excavation it is more easily eroded by the elements. Eroded soil usually moves downhill (the exception is soil eroded by wind) and eventually enters a river or the sea. There the finer soil will settle, a process called sedimentation. Sedimentation can cause damage to marine and freshwater ecosystems, and may reduce the quality of the water for instream values and uses such as drinking or irrigation. Larger soil particles including gravel and cobbles, can similarly be eroded and deposited in downstream river channels thus reducing the waterway area and leading to flood overflows.

14.2.2 Effects on Natural and Cultural Values of the Land (Including Landscape)

Buried archaeological, cultural and historical artefacts are at risk of destruction from land disturbance. For example, excavation and cultivation may disturb waahi tapu or obliterate pa sites.

Land disturbance can also change the landscape. Excavation and vegetation clearance change landforms and may take years to revegetate. Indigenous forest and grasslands can be destroyed by burning or clearance.

14.2.3 Effects on Natural Hazards

Excavation can destabilise hill slopes. Excavation makes cuts into hill faces which may then collapse. In high rainfall environments, cultivation and removing vegetation may increase the risk from erosion.

Sedimentation can also block waterways and flood channels, thereby increasing the risk of flooding during periods of high flow.

14.2.4 Effects on Land Productivity

The soil's productivity depends on its friability and drainage and on its fertility. Burning can strip nutrients from the land or expose the soil to accelerated erosion. Mechanical land clearance e.g. bulldozing, can remove topsoil, mix topsoil with subsoil, or compact the soil so that it is no longer free draining or well aerated.

14.2.5 Soil Conservation Reserves

14.2.5.1 Wither Hills

The Wither Hills immediately south of Blenheim have particularly high erosion potential due to the nature of the soil.

The consequences of rapid erosion filling stream channels results in flood overflows at the base of the hills with water flowing directly into intensively developed residential areas of south Blenheim.

In recognition of the severity and consequences of this erosion problem some 1000 hectares of the Wither Hills in four catchments have been acquired over 50 years into public ownership and are held by the Council. Soil conservation works have been carried out on the land and the land continues to be managed and maintained to minimise soil erosion. There is no doubt that this work is vital to the safety of Blenheim.

In 1993 the Council prepared a management plan for the Wither Hills setting out in detail its intentions to run it as a farm park to achieve soil conservation aims while providing recreational values and some farm income.

14.2.5.2 Wye Catchment Reserve

Previous authorities have carried out considerable soil conservation works on the Wye Catchment, not only because of the heavily eroded state of that catchment, but as a trial for methods that can be used elsewhere. What is practical to be done has been done and there is little to be gained at present from further pro active soil conservation measures. It is also acknowledged that the existing stands of Pinus Contorta present a seed source for spread of wilding trees and that there is a need for control measures to limit the spread of these trees.

14.3 Objectives and Policies

Objective 1	**The avoidance, remediation or mitigation of the adverse effects of inappropriate land use practices, including those which give rise to loss of those desirable physical, chemical and biological characteristics of soils which enable them to retain their life supporting capacity and to sustain plant growth increased sedimentation of surface and coastal waters, increased risk of erosion and damage to natural and/or iwi values.**
Policy 1.1	Encourage wise land use practices that will avoid, or mitigate the adverse effects of land disturbance and soil erosion.
Policy 1.2	Avoid land use practices that increase the potential for accelerated stormwater runoff.

Policy 1.3	Avoid, remedy or mitigate contaminated run-off arising from land disturbance activities entering the marine ecosystem or wetlands, lakes and rivers.
Policy 1.4	Avoid, remedy or mitigate significant reduction of soil fertility resulting from land disturbance or vegetation removal.
Policy 1.5	Require that known land stability hazards be recognised and provided for before beginning any land disturbance activity.
Policy 1.6	Encourage resource users to check the NZ Historic Places Trust Register for cultural, historical and archaeological sites on the land that they are proposing to disturb. The Council will make information from the register available to resource users.
Policy 1.7	To manage the Wither Hills so as to avoid, remedy or mitigate soil erosion in that area.
Policy 1.8	To liaise with the Department of Conservation in managing erosion prone Crown land for conservation reasons.
Policy 1.9	Require resource users to stop work and report to the Council if historical, cultural or archaeological artefacts or waahi tapu are disturbed, damaged or unearthed during land disturbance or land excavation.
Policy 1.10	Ensure consultation with relevant iwi before carrying out land disturbance requiring a resource consent.

The Council has a responsibility under Section 30 of the Act to control the use of land for the purpose of soil conservation. Unsound land management practices may lead to an unsuitable land use regime.

All the above policies combine to achieve the objective. In the past uncontrolled land disturbance has given rise to significant adverse effects in the Plan area. Control over the effects are necessary to achieve a sustainable land management regime.

The policies will apply to all resource use which involves land disturbance to the land surface. Resource users, in this case, persons wishing to undertake a land disturbance activity, will be required to address the above policies prior to commencing land disturbance work and particularly upon application for a resource consent for this activity.

14.4 Methods of Implementation

Rules

Minor land disturbance will be permitted subject to compliance with specified performance criteria which seek to reduce sedimentation, maintain soil quality, reduce the risk of damage from natural hazards, and protect ecological, cultural and economic values.

Consents will be required for land disturbance activities which fall outside that which is permitted. Conditions will be imposed to avoid, remedy or mitigate the adverse effects of land disturbance on the potential and life supporting capacity of the soil and water resources of the Wairau/Awatere area.

	Consent may be required for land disturbance activities on land over 20° slope, depending on performance standards listed in rules.
Council Activity	To implement the 1993 Council Management Plan for the Wither Hills property, including designating this reserve land as required for soil conservation purposes.
Education	Information and education programmes will be prepared to address land disturbance issues. A guide for land disturbance activity will be produced containing information relating to the effects of land disturbance on the soil resource, surrounding environment, and wetlands, rivers, lakes and the sea. Information relating to less disruptive techniques for disturbing land and means to minimise the effects of land disturbance will also be included. The Council will make this available to farmers, foresters, site developers and the like.
Monitoring	To ensure monitoring of specific land disturbance consents occurs. To monitor by aerial photography and other means the vegetative cover of erodable land (the Wither Hills Conservation farm in particular) to measure sedimentation and gravel build up in streams and rivers downstream of erodable catchments.
Guidelines	Provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.

An element of land disturbance must be provided for to enable utilisation of the land resource. The rules will provide certainty as to what is and is not acceptable.

Land disturbance is undertaken by farmers, foresters, roading contractors and developers of residential, and other urban, sites. Those people who undertake land disturbance may have little knowledge of the effects of their activities on the soil resource being disturbed or the surrounding environment. This includes the effects on the fresh water draining the area, and wetlands, lakes and rivers and the sea receiving that drainage water.

Often people who understand the effects of their activities will respond to new information by altering their activity to avoid or reduce adverse effects which could prevent sustainable management of the land and water resources of the Plan area.

14.5 Anticipated Environmental Results

Implementation of the policies and methods in relation to soil conservation will result in:

- Maintenance and enhancement, where appropriate, of the natural quality of soil on areas disturbed for farming, forestry and site development;
- The natural clarity of any permanently flowing river, lake, wetland or sea not being conspicuously reduced due to sediment laden run-off water originating from the site of a land disturbance operation;

- Land disturbance which does not result in woody material being left in any permanently flowing river, lake, wetland or the sea; and
- Historical, cultural or archaeological artefacts, sites or values protected from land disturbance.

15.0 Discharge of Contaminants to Land

15.1 Introduction

The discharge of contaminants to land is controlled under Section 15 of the Resource Management Act. Section 15 states that no person may discharge any contaminant into or onto land in circumstances which may result in the contaminant or any other contaminant entering water, unless it is expressly permitted by a rule in the Plan or Proposed Plan, a resource consent, or regulations. Section 30(c)(ii) of the Act requires regional councils to control the use of land for the purpose of maintaining and enhancing water quality.

This section sets out the issues, objectives, policies and methods which will enable the adverse environmental effects associated with the discharge of contaminants to land to be avoided, remedied or mitigated such that the life supporting capacity of soil, water and air is protected.

It should be noted that the discharge of hazardous substances has not been listed above because it is covered separately in Chapter 18 of the Plan.

15.2 Issue

The discharge of contaminants to land may create adverse effects on water quality, the life supporting capacity of the soils and amenity values

In the Wairau/Awatere area there are many activities which involve the discharge of contaminants to land. Generally the discharge of contaminants arises from the disposal of solid, liquid or gaseous material, generally in the form of waste. However, contaminants are also discharged through the application of agrichemicals and from day to day land use activities. Some specific examples of activities which discharge contaminants are:

- Disposal of agricultural effluent from dairy sheds, piggeries, and pastoral farming;
- Disposal of animal waste in offal pits;
- Disposal of agrichemicals from animal dips;
- Leachate from agricultural production;
- Application of agrichemicals including pesticides, herbicides and fertilisers;
- Disposal of agricultural and industrial processing waste (eg. apples, vegetable, cheese);
- Discharge of sediments from cropping and stock trampling adjacent to water bodies;

- Disposal of human effluent from domestic and community sewage treatment systems;
- Disposal of waste in landfills and farm dumps, composting and recycling operations;
- Disposal of waste from trade and industrial premises (eg timber treatment); and
- Discharge of contaminants from land disturbance (eg sedimentation).

All these activities have the potential to create adverse environmental effects if undertaken in a certain location or in an uncontrolled manner. Potential adverse effects include degradation of surface and groundwater quality through infiltration and runoff, soil contamination, disruption to land ecosystems and reduction of amenity values. However, some activities, such as the disposal of human and agricultural effluent, can have more significant adverse effects on the environment. It is important that the activities with more significant adverse effects are subject to greater controls.

In certain locations there is also potential for land based discharge activities to have more significant adverse environmental effects. This is particularly the case for landuse activities located over the unconfined Wairau Aquifer, where contaminants can be more easily carried into the aquifer. Given the significance of the Wairau Aquifer for the supply of community drinking water it is important that activities located over the unconfined Wairau Aquifer are subject to more restrictive controls. Activities located adjacent to high value surface water resources or surface water resources which require enhancement should also be subject to greater controls to enable water quality to be enhanced.

Recent growth in the Marlborough economy has led to greater quantities of contaminants being discharged to land, particularly in the form of agrichemicals. Greater volumes are generally associated with more significant adverse effects. The Marlborough Regional Policy Statement seeks to reduce the quantity of contaminants, particularly waste, being discharged to the environment by promoting the principles of waste minimisation and cleaner production.

15.3 Objectives and Policies

Objective 1	**To avoid, remedy or mitigate adverse environmental effects arising from the discharge of solid and liquid contaminants onto or into land.**
Policy 1.1	To control activities on the basis of the environmental effects arising from the discharge of contaminants to land.
Policy 1.2	To subject all landuse activities which discharge contaminants onto or into land located over the unconfined aquifer/s to greater controls on the basis of environmental effects.
Policy 1.3	To encourage riparian management for landuse activities located adjacent to surface water resources which require enhancement or are highly valued.

Policy 1.4	To undertake targeted monitoring and research to determine the effect of non-point source discharges on surface water quality in water bodies which require enhancement or are highly valued.
Policy 1.5	To require self-monitoring for agricultural and industrial activities which discharge waste to land to determine the environmental effects associated with the discharge on soil and water quality.
Policy 1.6	To develop land based discharge guidelines for key disposal activities and key physical environments within the planning area which avoid, remedy or mitigate adverse effects associated with disposal.
Policy 1.7	To set standards of treatment for on-site human effluent disposal that avoid adverse environmental effects for all properties not connected to the reticulated sewerage system.
Policy 1.8	To require comprehensive monitoring of effects associated with the existing and closed landfills in the planning area and take such action as required to mitigate those effects.

The objective and policies recognise that activities involving the discharge of solid and liquid contaminants to land have varied effects on the environment. Activities with less significant environmental effects can be subject to less restrictive controls. However, activities with more significant effects should be subject to more restrictive controls. The policies also recognise that in certain locations, such as over the unconfined aquifer, activities have the potential to create more significant effects. In these locations activities will be subject to more restrictive controls. This is particularly important over the unconfined Wairau Aquifer which supplies the majority of the catchments domestic, agricultural, commercial and industrial water.

Riparian management is considered an effective way of minimising adverse effects on adjacent surface water bodies. A number of waterbodies in the planning area have been identified as having high value or requiring enhancement. Riparian management should be encouraged on land adjacent to these resources to reduce the effects of sedimentation, stock trampling, cropping, and fertiliser/chemical application which can adversely affect water quality.

Monitoring is important to determine the actual effects associated with non-point source discharges of contaminants on surface water and groundwater. This is poorly understood currently and it is therefore possible that current management methods are less than effective. Monitoring information will be used to develop the most effective and equitable controls.

The development of land based discharge guidelines is important because these can be integrated into rules and therefore provide certainty to users while also ensuring that adverse effects are avoided, remedied or mitigated. The guidelines should be sufficiently comprehensive to cover key discharge activities and key receiving environments. Guidelines can also be used to educate users.

One of the activities which has a significant adverse effect on soil and water quality and amenity values is the on-site treatment of human effluent. The majority of houses in the Blenheim urban area are connected to a reticulated sewerage system. However, rural residential houses and the townships of Renwick, Grovetown, Riverlands, Ashford Grove subdivision, Tuamarina, Rarangi and Burleigh are all unsewered. In some cases the on-site effluent treatment systems, (usually septic tanks), function very poorly, particularly in wet periods when the groundwater table is high. In these locations there

is real potential for contamination of surface water and groundwater, and frequently of the aquifers which supply community or individual household drinking water. Clearly there are both health and environmental risks associated with this situation. The policies requiring higher standards of treatment and research into mitigating the effects of human effluent disposal are incorporated to address these significant problems.

The district's landfills represent significant quantities of contaminants being discharged to land. Rationalisation of the landfills to one fully engineered site will greatly reduce the volume of contaminants (in leachate form) discharged to land. In the engineered landfill, leachate will be reduced through improved stormwater interception and will be controlled through the use of liners. Comprehensive monitoring will be required to ensure that any effects arising from the site are identified. Closed landfills will require remediation and monitoring to ensure that the continued effects of decomposing waste are being avoided, remedied or mitigated.

15.4 Methods of Implementation

Rules	Rules will be used to require discharge to land activities to avoid, remedy or mitigate adverse effects. Activity classifications will be used to distinguish between activities with minor and more significant adverse effects. Activities with minor adverse effects will be permitted. Discharge to land standards will be developed and used as part of the rules. Compliance with these standards will enable most activities to proceed as Permitted or Controlled Activities. Separation distances, application rates, and application areas will be incorporated within the rules to avoid, remedy or mitigate the effects of contaminants being discharged to land.
Education	About the effects of contaminants being discharged to land, particularly the effects of the discharge of hazardous and toxic contaminants and the effects of discharge over the unconfined aquifer. Education programmes will include practical information on how to reduce adverse effects, particularly on water quality and amenity values. One of the priority activities to be addressed in this community education programme will be the effect of discharges from on-site effluent treatment systems. About the benefits of riparian management.
Guidelines	Provide information on appropriate land uses and encourage use of voluntary guidelines and best practices.
Incentives	To provide incentives to landowners to improve riparian management in areas where water quality requires enhancement.
Monitoring	Undertake monitoring to identify the actual effects of non-point source discharges on surface water quality for those water bodies where water quality requires enhancement or water bodies with very high value. Use self-monitoring of discharges requiring consents to educate users about the effects of their activities.

Investigation	To investigate and identify improved methods for treating human effluent in unsewered towns and rural residential areas particularly those sites located over the unconfined aquifer.
Liaison	Liaise with rural land owners and Landcare Groups to encourage improved riparian management adjacent to water bodies with high value or where the existing water quality requires enhancement.
Enforcement	To issue abatement notices and enforcement orders where the discharge of contaminants creates any significant adverse effect that is not permitted through a resource consent.

Rules are required to ensure that significant adverse effects on water, soil quality and amenity values are avoided, remedied or mitigated. However, many landuse activities are difficult to control or enforce by rules and as such require other methods, primarily education, liaison and incentives to achieve a desired attitude change. Monitoring is important as an education tool to provide better information on the effects of non-point source discharges on water quality. Investigation is required to deal with the complex problem of contamination which arises from poorly functioning on-site sewage treatment systems.

Objective 2	**To significantly reduce the quantity of contaminants discharged to land.**
Policy 2.1	To encourage all organisations and individuals who discharge contaminants to land to adopt principles of waste minimisation and cleaner production by: • Reducing the quantity or toxicity of the discharge by using resources more efficiently; and • Reusing, recycling and recovering materials from the waste stream.
Policy 2.2	To promote the composting of organic and plant material.
Policy 2.3	To ensure that any adverse environmental effects associated with composting are avoided by subjecting the activity to appropriate land use and discharge controls.

Growth in the Marlborough economy has led to an increase in the quantity and toxicity of contaminants being discharged to land. One of the most effective ways of reducing the environmental effects associated with such contaminants is to reduce the volume or toxicity of material generated for disposal.

Using Cleaner Production Systems is an effective method of reducing waste either by preventing its generation or reducing its volume or toxicity. The Environmental Management Challenge and other industry and public education programmes are designed to promote cleaner production and achieve a reduction in waste.

Recent waste surveys in Marlborough show that approximately 40-60% of the Marlborough solid waste stream is compostable. Compostable waste includes garden material, fish waste, organic kitchen scraps and untreated sawdust. Controlled composting is an excellent way of reducing the effects associated with the disposal of waste because it creates a valuable resource that can be used for fertiliser or soil enhancer for home gardens, forestry, agriculture, horticulture, and viticulture. The

Council recognises that composting will also extend the life of the central landfill and will reduce soil and water contamination.

15.5 Methods of Implementation

Rules	Subject composting operations to rules to ensure that the effects of contaminants being discharged to the environment are avoided, remedied or mitigated.
Education	Promote waste reduction techniques, including the avoidance of waste through adopting cleaner production and reuse and recycling of materials. Promote waste minimisation to industry through implementation of an Environmental Integrity Programme. Inform the community about the benefits of composting and the methods to be employed to avoid, remedy or mitigate adverse effects of composting.
Incentives	Use economic instruments to provide an incentive for waste minimisation.
Advocacy	The Council will advocate to the Minister for the Environment for the development of national systems to address waste minimisation and full environmental accounting of resources disposed of as waste.
Other	Provide compost bins at Transfer Stations for the separation of green waste prior to disposal and discounted landfill charges for the green waste.

Rules are required to ensure that significant adverse effects on water, soil quality and amenity values are avoided, remedied or mitigated. However, many landuse activities are difficult to control or enforce by rules and as such require other methods, primarily education and incentives to achieve a desired attitude change.

15.6 Objectives and Policies

Objective 1	**The storage and transfer of solid and liquid waste materials in such a way that water and soil quality, land and water ecosystems, and amenity values are not adversely affected.**
Policy 1.1	Avoid, remedy or mitigate adverse effects associated with the transfer and storage of waste materials.

The importance of the coastal and land resources for communities' cultural, social and economic wellbeing demands the effects of storage or transfer of solid wastes are avoided so that there is no adverse effect on the potential or life-supporting capacity of those resources.

15.7 Methods of Implementation

Rules	Rules make provision for the storage and transfer of materials, including wastes, subject to performance standards.
Education	Promote methods for the safe transfer of solid and liquid materials, including wastes, that avoid adverse environmental effects. Education would include techniques to adequately secure loads and prevent leakages.
Enforcement	The Council will issue abatement notices and enforcement orders where the storage of solid and liquid wastes creates any significant adverse effect.

Education is the key means of changing people's attitudes and behaviour. If most of the community is attempting to achieve desired outcomes then regulation is only needed to ensure complete community achievement of outcomes.

15.8 Anticipated Environmental Results

Implementation of the policies and methods for managing the discharge of contaminants to land is anticipated to result in:

- Maintenance or enhancement of groundwater quality in controlled aquifers through strict controls on discharge of contaminants;
- Improved surface water quality through riparian management alongside water bodies which require enhancement;
- Adverse environmental effects associated with landfills avoided, remedied or mitigated;
- Soil contamination reduced and land ecosystems protected through improved control of the discharge of contaminants to land, particularly agricultural effluent and industrial waste;
- Soil contamination reduced and land ecosystems protected through control of the storage and transfer of materials, including waste;
- The reuse of valuable resources being encouraged and the waste stream being reduced;
- Amenity values being protected through the control of dumping of solid waste;
- Amenity values being protected through improved control of the storage and transfer of materials, including waste;
- Improved monitoring information and understanding of effects of non-point source discharges on surface water bodies; and

- Improved functioning of on-site treatment of human effluent in unsewered towns and consequent improvement in amenity values, water quality and soil quality and reduction in community health risks.

16.0 Undesirable Plants and Animals

16.1 Introduction

Undesirable plants and animals invade and damage natural resources and their spread can result in adverse effects on other resources and people. Plant pests adversely affect both indigenous and production land ecosystems. Plant pests invade indigenous ecosystems often harming native habitats and altering whole landscapes.

The uncontrolled spread of plant pests can seriously undermine the production base of land used for productive purposes.

Animal pests likewise have an adverse effect by competing with livestock for pastoral habitat, contributing to soil erosion and destroying indigenous fauna and flora. While it is impractical to eradicate all undesirable plants and animals, their adverse effects can be mitigated through control measures and land management practices.

16.2 Issue

Undesirable plants and animals invading or damaging land and water ecosystems.

The Wairau/Awatere has a wide variety of ecological communities and species present. A large variety of sensitive indigenous species, and productive exotic species occur within these ecosystems.

Undesirable plants and animals threaten the characteristics which give value to ecosystems, or directly affect the survival or health of important species and/or communities. For example, wilding pines can establish in open communities such as tussock land, possums browse indigenous trees, pigs forage for native snails and spartina can block estuarine areas. Some species also run the risk of escape or accidental transfer by vehicles to conservation lands, such as goats and deer and plant pests. These examples all relate to the maintenance of indigenous ecosystems. Undesirable plants and animals also affect primary production ecosystems. For example, possums spread diseases in cattle and deer herds, gorse and broom invade forest lands, and unpalatable species invade pastures.

16.3 Objectives and Policies

Objective 1	**The protection of land and water ecosystems from the adverse effects of plants and animal pests.**
Policy 1.1	Prepare and maintain Regional Pest and Plant Management Strategies in accordance with the provisions of the Biosecurity Act 1993.
Policy 1.2	Provide for agreed methods of pest control by enabling the implementation of National and Regional Pest Management Strategies.
Policy 1.3	Permit the controlled application of pest controls (eg; 1080) subject to discharge conditions (see 1.7.6 Rural Zones, 1.3.4 Conservation Zone, Volume Two).

The spread of undesirable plants and animals have the potential to seriously reduce the intrinsic, conservation, cultural, and economic values placed on the natural and physical resources of the Wairau/Awatere Plan Area.

The enactment of the Biosecurity Act in 1993 requires that pest management be carried out in accordance with either a National or Regional Pest Management Strategy. The development of these strategies is subject to public consultation and submission procedures. Thus, it forms the basis for the provisions relating to undesirable plants and animals in this Plan.

16.4 Methods of Implementation

Rules	Permit the deposition, application or administration of such chemicals, biological controls, poisons and hazardous substances necessary for the control of plant and animal pests as provided for within an approved National or Regional Pest Management Strategy.
Education	Refer to education provisions of the Regional Pest and Plant Management Strategies.
Monitoring	Refer to monitoring provisions of the Regional Pest and Plant Management Strategies.

The formulation of a Regional Pest and Plant Management Strategies will allow for adequate public debate on control methods. It is therefore not intended to repeat the exercise during the preparation of this Plan.

16.5 Anticipated Environmental Results

Implementation of the policies and methods relating to undesirable plants and animals will result in:

- A reduction in the adverse effects caused by the spread of plant and animal pests and promotion of the sustainable management of the land and water resources of the Wairau/Awatere area; and
- Protection of indigenous vegetation through control of undesirable plants and animals.

17.0 Natural Hazards

17.1 Introduction

The Wairau/Awatere is potentially subject to a wide range of naturally occurring hazards. Earthquakes, tsunamis, erosion, landslip, sea level rise, floods, sedimentation, wind, drought, fire, rain, hail and snowfalls can result in damage to private and community assets. In some cases human life will be at risk.

Of those hazards, flooding has historically been given the most attention even though the effects of other hazards can be equal to or more severe than flooding.

Natural hazards are commonly analysed in terms of magnitude-frequency concepts, whereby events of differing size (= magnitude) are assigned estimated average exceedence intervals (= frequency). As an example the 100 year flood level will be exceeded on average once in every 100 years. Because this is a statistical average only, more than one such event can occur in any 100 year interval. Note also that because the flood frequency relates to the so called 100 year flood being exceeded, such an event can be much larger and still be in accordance with statistical expectations. The 100 year frequency is often used in the assessment of risks when dealing with natural hazards. Below is a simplified hazard evaluation for the Wairau/Awatere.

Simplified Hazard Evaluation for the Wairau/Awatere Likely Exceedence Interval		
Hazard Category	Less Than 100 Years	Greater Than 100 Years
Meteorological	Climate change. Extreme storm event (rain or wind). Major drought in part of area. Snow.	Long-term climatic change.
Flooding	Severe flooding in any river system. Stopbank failure in many river systems. Local flooding due to intense rainfall in low-lying areas.	Breach in Wairau stopbanks (flooding in Blenheim, Spring Creek, Grovetown, Tua Marina). Stopbank failure in other river systems.
Coastal	Severe storm erosion of beaches. Continuing cliff and shoreline retreat. River-mouth/spit tip changes. Possible sea level rise due to "Greenhouse Effect".	Major tsunami damage along coast. Long-term sea level and storm pattern changes.
Landslide	Severe rainstorm-generated landslides in any catchment. Localised earthquake-generated slope failures and/or ground subsidence.	Large earthquake-generated rock avalanches. Earthquake-generated rockfalls upland and liquefaction in lower Wairau, Rarangi.

Simplified Hazard Evaluation for the Wairau/Awatere Likely Exceedence Interval		
Hazard Category	Less Than 100 Years	Greater Than 100 Years
Seismic	Ground shaking and local damage to small magnitude (M_L<6.0) event within District, or to large magnitude (M_L>6.0) event outside the District.	Ground rupture on Wairau Fault or Alpine Faults with accompanying large magnitude (M_L>6.9) earthquake effects in Blenheim. Subsidence or raising of land resulting in change to drainage pattern and potential flooding from rivers or sea.
Note: *Major forest fires in rural areas are excluded from classification, but can be expected to have a recurrence interval of less than 100 years.*		

17.2 Meteorological

17.2.1 Issue

Adverse effects arising from extreme meteorological events.

There are a number of meteorological events which have the potential to cause damage and destruction and for which little can be done. These hazard events which warrant consideration are damage by snowstorms, windstorms and drought.

Windstorms can result in damage to exotic forests and structures, stock losses (in conjunction with heavy precipitation) and loss of topsoil (losses of up to 5 tones/hectare have been calculated in extreme events). Dealing with the effects of windstorms requires appropriate responses in terms of structural standards for wind loading and emergency preparedness. Further research is required to assess actual damage that occurs in this part of the district due to extreme wind to determine the value of developing mitigation strategies.

Snowstorms can result in large stock losses, damage to horticulture and disruption of road, rail and other communication systems.

Drought may be defined in many different ways. Easiest of all is by applying the concept of "lack of rainfall". If agriculture is the primary concern then "soil moisture deficit" might be a more appropriate measure. In a hazards context, the way in which a population is able to adjust to drought potential is a factor of importance when considering the question of risk and need for a response. Nevertheless the impacts of severe droughts are generally widespread and the cost to the district often becomes difficult to separate from the cost to the Country. The greatest losses usually occur in agriculture and power generation.

Because drought develops relatively slowly, is long lasting and often widely dispersed in extent, the range of immediate and appropriate options is limited. The most pressing need is for improved forecasting for both seasonal and several year time scales, and the use of this information. Such information should be built into strategic management strategies such as water storage and augmentation schemes and the encouragement of flexible agricultural regimes.

17.2.2 Objectives and Policies

Objective 1	To avoid, remedy or mitigate the adverse effects of extreme meteorological events.
Policy 1.1	Adopt measures which are cost/benefit efficient.
Policy 1.2	Adopt measures which are based on sound information.
Policy 1.3	Adopt measures which in themselves do not give rise to adverse environmental effects.
Policy 1.4	Adopt equitable measures when the solution relies on remedial steps to be taken, as is the case when water rationing is implemented.

Through increased knowledge of hazards, Emergency Response, engineering responses and the application of the Resource Management Act, the community is now better placed than it has ever been to respond to the effects of natural hazards. Nevertheless measures adopted need to be cost effective and equitable.

17.2.3 Methods of Implementation

Rules	Plan rules will be used to ration allocatable water during periods of drought. Plan provisions encourage the storage of water.
Research	The Council will conduct research into previous meteorological events and assess the costs to the district of severe events. The Council will conduct research into effective forecasting methods.
Liaison	The Council will liaise with government agencies to ensure observation networks are maintained so that the frequency of severe events may be better defined and the impact of significant events better determined.
Emergency Response	The Council will maintain emergency procedures in association with Emergency Response.
Education	The Council will develop and provide material on methods to avoid or mitigate the effects of severe meteorological hazards.

Appropriate responses vary for different types of meteorological hazards. Controlling the natural event is generally not possible except for hazards like snow avalanches and flooding which are indirect results of meteorological events, but even for these, this approach should not be totally relied upon. Only a few of the hazards discussed are amenable to the use of rules in Plans. Consequently for meteorological hazards, there is heavy reliance on forecasts and warnings, emergency preparedness and ultimately loss bearing responses such as subsidies, insurance and public relief.

17.3 Flooding

17.3.1 Issue

Effects from flooding and erosion are major hazards, especially on the main Wairau floodplain where extensive river channel modification and other river control works have been carried out.

Over the 100 years or so since river works were commenced on the Wairau floodplain, vast amounts of money have been spent to create the present river system for the prime purpose of flood control. Since the 1950's alone, over $80 million in present terms has been spent - mostly with a high degree if success and benefit in the prevention of catastrophic flooding. The Wairau is the most powerful river in New Zealand for which a comprehensive river control scheme has been carried out.

It is not possible to reverse these works and the Council and its ratepayers have a responsibility to at least maintain the current 'artificial' river pattern; or improve it to an appropriate standard.

In particular the location of rivers has been changed by construction of diversions, or by blocking off alternative outlet channels. These diversions and blockages have meant that every river channel or floodway on the Wairau floodplain below the Waihopai confluence (Rural 3 Zone) is carrying a different flow regime or in a different position (or both), and usually substantially different from what it did prior to European settlement. The major rivers of this Wairau floodplain have an integrated contiguous stopbank system.

The most significant of these works is the blockage of the Opawa distributary channel from the Wairau. This has increased flood flows down the mainstem Wairau by typically 50%. This has subsequently required substantial river control works on the mainstem Wairau - including the Wairau Diversion - to cope with these increased flood flows.

It has also allowed development of Blenheim to go ahead without the regular flooding from the Wairau. More recently it has also allowed much of the land of the Upper Opawa channel to be developed for viticulture within a narrowed floodway.

By 1991 the flood control standard achieved was capable of withstanding floods to a 1 in 30 year return period frequency over almost all of the floodplain.

For other Wairau tributaries outside the floodplain the river control works that have been carried out are to much lesser standards. The majority of the work has been channel clearing and bank edge protection to prevent erosion and generally do not include contiguous stopbank works.

Few river control works have been carried out for rivers outside the Wairau catchment.

17.3.2 Objectives and Policies

Objective 1	**To minimise potential for loss of life and damage to property in the main Wairau floodplain (Rural 3 Zone) downstream of the Waihopai confluence.**
Policy 1.1	To maintain and upgrade to a uniform high standard the existing highly modified floodway systems as the primary mechanism of mitigating against the flood hazard.
Policy 1.2	To attain a floodway capacity and standard of protection for flood sizes up to a 1 in 100 year return period for the major rivers on the floodplain.
Policy 1.3	To provide and maintain a network of constructed channels and structures to remove local stormwater (and drainage water) and dispose of it into the major river floodways.
Policy 1.4	Not locate houses and structures where damage could occur because of the effects of flooding where the flood standard in Policy 1.2 cannot practically be achieved.
Policy 1.5	Define areas on suitable maps where a significant flood hazard exists and flood paths of extraordinary floods.
Policy 1.6	Avoid locating urban or industrial development on flood path areas of extraordinary floods.
Policy 1.7	Provide heavy rainfall and flood warnings and emergency flood response procedures.

Objective 2	**Management of areas outside the main Wairau floodplain that are susceptible to flood hazards so as to mitigate damage to property and infrastructures and to avoid loss of life.**
Policy 2.1	Locate houses and structures to avoid damage from the effect of the flood hazard.
Policy 2.2	Maintain river channel efficiency and protection works where the benefits outweigh the costs.
Policy 2.3	Define areas at risk from significant flood hazard as information becomes available.
Policy 2.4	Provide heavy rainfall and flood warnings and emergency flood response procedures.
Policy 2.5	To minimise bedloads of floodways by encouraging retirement of badly eroding areas of the mountain lands.

The river works and floodways that have been imposed in the past on the Wairau floodplain rivers have completely altered them from their 'natural' state. The rivers are impossible to return to their former state. The Council, as river authority, now has the responsibility of at least maintaining the current river pattern to enable them to pass

flood flows safely. There is no 'do nothing' option, and the economics of undertaking river control works on the main Wairau floodplain are a secondary issue.

On the Wairau floodplain, works need to be built to control at least to a standard of a 1 in 50 year return period event to achieve the specified standard of the Building Act. Most urban areas of New Zealand have higher standards, a 100 year return period event being a common standard. Furthermore, some of the works, cannot sensibly be designed to a lower standard than a 1 in 100 year period event.

The inter-related nature of the floodways and the floodplain areas at risk means that it is appropriate to have the same standard for all main floodplain rivers, except for some isolated pockets of identifiable flood prone land.

Most of the Wairau floodplain is protected from floods in the major rivers up to 1 in a 100 year return period event. Exceptions to this are:

- *Within the stopbanked floodways of the rivers;*
- *Riparian margins of non-stopbanked tributaries;*
- *Areas where river control works do not yet protect land to the intended standard; and*
- *Areas of ponded/gently flowing floodwaters where it is not economically feasible to construct flood protection works.*

These areas on the Wairau floodplain are depicted by a flood hazard overlay. The degree of hazard within this hazard overlay is site specific and varies from location to location.

A flood hazard overlay is not drawn for areas outside the Wairau floodplain because of a lack of information on the flood hazard.

Urban and industrial areas can have particularly high flood losses and any further expansion of such areas should be planned so as to avoid the flood breakout paths of extraordinary floods.

Flood losses can also be reduced by timely warnings and emergency actions.

Local stormwater also causes significant nuisance on the lower plains, which has been worsened by high stopbanks on the major rivers inhibiting drainage.

Outside the main Wairau floodplain the benefit of carrying out structural protective works is lower and the costs of full protection often outweigh the benefits.

17.3.3 Methods of Implementation

Council Activities	Maintain and improve river control works on the major rivers as detailed in a suitable comprehensive integrated engineering plan.
	Maintain and improve a network of constructed channels and structures to deal with local stormwater (and drainage) as detailed in a suitable comprehensive engineering plan.
	Encourage retirement of eroding mountain lands.
	Prepare a flood response manual regarding emergency procedures during flood occurrences in association with Emergency Response.

Zoning	Zone land within the floodways and identify land on which significant flooding is known to occur as a flood hazard area with appropriate rules.
Designations	Floodway land will also be designated as required for river control works so as to control activities such as tree planting which might impair the functioning of the floodway.
Rules	For defined flood hazard areas rules will be used to ensure damage from the flood hazard is avoided by sensible location of structures outside the identified area or, to minimum floor levels.
Monitoring	Monitor the performance of the floodway system by measuring size of floods, recording flood levels along banks, inspecting banks for erosion damage and survey of flood events, especially following major floods. Regularly re-survey river channel bed levels and re-analyse the effects of changed channel conditions on waterway capacity. Use monitoring information to review expected flood size from time to time.
Information	Develop an information database relating to the location and extent of the flooding hazard.
Education	Promote community understanding of the severity of the flood hazard on the Wairau floodplain, of Wairau tributaries and other flood prone rivers.

The historical modification for flood control purposes of the inter-related watercourses of the Wairau floodplain (below Waihopai confluence) is irreversible. The maintenance and upgrading of the river control floodways has to remain the primary method to reduce the flood hazard here. This is a public work that has to be done by the Council to a comprehensive and integrated plan.

Even so there will be identifiable areas on the floodplain where the costs of flood control works exceed benefits and flood hazard avoidance measures are preferable.

The efficient and effective operation of the floodways, many of which are on private land, may be compromised by activities of other parties. Defining acceptable activities within defined floodway zones will help maintain floodways to an effective standard.

Outside the main Wairau floodplain the costs of structural flood hazard avoidance measures usually exceed the benefits. Here the location of houses and structures where they will not be damaged will be a more effective method of reducing loss and sustaining development.

An information base on the frequency, location and extent of the flood hazard is required in the design of the Council flood control works; in the delineation of flood hazard areas and in rules for flood hazard areas and other zones.

17.4 Coastal Hazards

17.4.1 Issue

Natural hazards can compromise human wellbeing and safety and cause damage to habitat, amenity values, property and infrastructure.

Hazards can be aggravated by inappropriate land use management practices and activities.

Climatic Change

During the last decade there has been increasing evidence that a concentration of "greenhouse" gases in the earth's atmosphere may be changing the world's climate. In the coastal marine area most of the focus has been on the effect of sea-level rise, however for East Marlborough Coast the greatest impact may be due to an increased frequency or size of storm events.

Historically sea-level rise has been minimal around New Zealand. Along the East Marlborough Coast the continual sediment movement and seismic activity has countered any sea-level rise with many of the gravel sections continuing to grow seawards. This is expected to occur if sea-level rise continues at approximately the same rate. This may not be the case though for the Wairau Lagoons.

The stopbanks constructed around the Lagoons will limit the natural migration of the wetlands and inundation of the drier areas of the lagoon may occur. Provision could be made to allow for the natural migration of the estuaries and wetlands in the event of sea-level rise but this may be inappropriate for the Wairau Lagoons because of the developed nature of the area behind the stopbanks and the importance of the stopbanks for flood protection.

Changes in the frequency and size of storm events may alter sediment movement and result in areas of increased erosion and/or marine inundation. The possibility of this occurring has not been studied for the Marlborough area but, as many of the gravel beaches along the coast have the ability to rapidly replenish themselves after storm events, moderate storm events are not perceived to be a major issue. Catastrophic events could, though, result in the penetration and/or destruction of the banks fronting the Wairau Lagoons and Lake Grassmere. This could result in the formation of large shallow embayments.

Seismic Activity and Tectonic Movement

The East Marlborough region, especially the Wairau Valley, is a very active seismic area and contains the Wairau, Awatere and Ward faults. Seismic activity can result in a number of different natural hazards including inundation by the sea, salt water intrusion into freshwater aquifers, and tsunamis.

The 1848 earthquake was a particularly large earthquake resulting in subsidence of the sediment in the Wairau Lagoons by up to 1.5m, thus enlarging them considerably.

South of White Bluffs the tectonic movement has been historically upwards with more rapid uplift south of Cape Campbell. This trend is expected to continue. However, sudden subsidence could result in marine inundation of Lake Grassmere.

Tsunami

Tsunamis are large waves triggered by earthquakes, landslides, underwater slumping or underwater volcanism. Tsunamis can result in marine flooding of large areas of land with its associated impacts.

Tsunamis in this area may result in marine inundation of the Rarangi settlement, low-lying farm lands, Lake Grassmere and the Wairau Lagoons. The frequency or size of tsunamis and the extent of inland flooding has not been estimated and would be very difficult to quantify.

17.4.2 Objectives and Policies

Objective 1	**Management of areas prone to coastal hazards to avoid loss of life, and avoid or mitigate damage to property, infrastructure and the environment as a result of the occurrence of natural hazards.**
Policy 1.1	To assess the likely need for coastal protection works when determining appropriate subdivision, use or development in the coastal environment and where practicable avoid those for which protection works are likely to be required.
Policy 1.2	The ability of natural features and systems to provide a natural defence to coastal hazards, including erosion, inundation and sea level rise, should be recognised and the integrity of such features or systems be protected where appropriate.
Policy 1.3	To avoid developments or other activities that are likely to interfere with natural coastal processes including erosion, inundation, except as provided for in Policy 1.5.
Policy 1.4	To monitor and research coastal processes and the extent to which they constitute a hazard.
Policy 1.5	To allow the establishment of coastal protection works only where: • The works are justified by a community need; • There are substantial capital works or infrastructure at risk; • Alternative responses to the hazard (including abandonment or relocation of structures) are impractical, impose a high community cost, or have greater adverse effects on the environment; • It is an inefficient use of resources to allow natural processes to take their course; and • Protection works will not generate further adverse effects on the environment or transfer effects to another location.
Policy 1.6	Provide warnings and emergency response procedures for areas at risk from or affected by predictable coastal hazards.

As previously noted no natural hazards directly affecting human activities presently occur along the coastline. The Council is in a position to maintain this and avoid any activities which may give rise to natural hazards or be affected by potential future hazards. To accurately establish the potential impacts of hazards and develop detailed policy, further research is required.

17.4.3 Methods of Implementation

Rules	Plan rules will be used to ensure that the effects of coastal hazards are a factor taken into account in the consideration of applications for coastal permits.
Research	The Council will conduct research into the potential effects of sea level rise and tsunami and record the hazard on the Council's Hazards Register.
Liaison	The Council will liaise with agencies conducting research into the effects of coastal hazards and will maintain emergency procedures in association with Emergency Response.
Education	The Council will develop and provide material and advice on mitigation of coastal hazards.
Monitoring	The Council will maintain an information base relating to the frequency and nature of coastal hazards.

Due to the undeveloped nature of the coastline the risk from natural hazards arising on the coast are relatively minor. Consideration should however, always be given to avoiding risk. Information describing the frequency and extent of potential natural hazards is an essential precursor to the community taking appropriate measures to minimise the threat of damage or danger.

The Natural Hazards Register will provide an information base detailing the risk of natural hazard occurrence.

A co-ordinated emergency response process will ensure that the community is warned about and is prepared for any known hazard occurrence.

17.5 Landslide/Soil Erosion

17.5.1 Issue

Danger to life and property from the effects of slope failure.

Slope instability involves ground failure by falling, sliding and/or flowage of material downslope, and may occur within bedrock or in the mantling soil. It is of concern in some parts because of the potential effects of earth movements to affect residential sites (Wither Hills, for example), rural areas/sites and, rivers and transportation routes.

In general, rainstorm, tectonic or other naturally generated slope failures are unlikely to require emergency services response unless accompanied by extensive flooding and/or pose a threat to a population centre. The fact that transportation corridors are obviously vulnerable to such events means that agencies have an important

obligation to carry out regular maintenance to minimise storm damage costs and closure times.

Although much is known about the different types of land failures which affect different parts of the Wairau/Awatere further research is required in order to develop a more comprehensive picture of the risks associated with different kinds of slope failures.

In particular research is required to establish:

- **Historical Data Base**

  Collation of records of past rainstorm-generated slope failures, with a view to gaining a better understanding of frequencies and triggering rainfalls.

- **Rainfall Records**

  The extreme variability in magnitude/frequency/duration for different parts of the Region requires assessment.

- **Threshold Moisture Levels**

  Determination of threshold soil moisture levels for the loessial soils of the Wairau Catchment is needed, with a view to providing emergency services warnings when widespread slope failures can be anticipated.

- **Landslide Hazard Zoning**

  The zoning of areas according to risk of slope failure is also required, with priority being given to the Wither Hills area because of the greater urban population involved.

- **Landslide Monitoring**

  Existing landslides which move in response to increases in soil moisture should be monitored on a regular basis to provide an improved data base, and to facilitate remedial measures.

- **Vulnerable Localities**

  Areas at risk from slope movement and extensive soil erosion hazards, specifically transportation routes and population centres, should be identified in consultation between Transit New Zealand, Tranz Rail and the Council.

17.5.2 Objectives and Policies

Objective 1	**Avoid loss of life, and avoid, remedy or mitigate damage to property and infrastructure as a result of slope instability.**
Policy 1.1	Locate works and structures to avoid their damage from the effects of slope instability.
Policy 1.2	Establish and maintain protection works designed to avoid, or mitigate the effects of natural hazards, where the benefits outweigh the costs.
Policy 1.3	Define areas at risk from slope instability, including sea level rise, within a Natural Hazards Register to assist future sustainable management of resources.

Policy 1.4	Provide warnings and emergency response procedures for areas at risk from or affected by slope instability.
Policy 1.5	Maintain a program for soil stability and vegetation in the Wither Hills area.

Objective 2	**Avoidance of activities which could increase the frequency, severity or potential occurrence of slope instability.**
Policy 2.1	Locate works and structures to avoid effects which increase the adverse effects of slope instability.
Policy 2.2	Avoid, remedy or mitigate activities, including earthworks and vegetation clearance, increasing the risk or occurrence, or potential to cause damage, of slope instability.

One of the major concerns with landslip hazards relates to damage or destruction of property and infrastructure, loss of amenity values, restriction of public access, and interruption to land and water ecosystems.

Sustainable management of resources requires consideration of the avoidance of the adverse effects of natural hazards. Where effects cannot be avoided then they should be remedied or mitigated to provide for community health, safety and wellbeing.

17.5.3 Methods of Implementation

Rules	Provide for continued soil conservation works on Wither Hills. Identifying slope instability hazards for inclusion in the Hazards Register.
Research and Monitoring	Develop historical data base. Compile rainfall records for different parts of region. Determine threshold soil moisture levels for loessial soils. Develop zoning of slope hazard risks. Monitor existing landslip hazards.
Information	Maintain a Hazards Register.
Education	Promote community understanding of slope instability hazards and ways to avoid, remedy or mitigate the effects.
Council Activities	Maintain protection works and structures. Maintain emergency procedures in association with Emergency Response.

17.6 Seismic

17.6.1 Issue

The potential for loss of life, damage to property and disruption to infrastructure arising from seismic activity.

The Wairau/Awatere region lies within the highest zone of earthquake risk in New Zealand. The principle elements of the Marlborough fault system are the Wairau,

Awatere, Clarence and Hope faults while the New Zealand Alpine fault which originates in Milford Sound meets the Wairau fault at Blenheim.

Damage from a major earthquake (i.e. greater than 6.5 magnitude Richter Scale) will include rock falls and landslides in the mountains. Large landslide deposits occur in a number of places throughout the mountains on both sides of the Wairau river, including one which dammed the Goulter River to form Lake Chalice, and are probably the result of major prehistoric earthquakes.

An earthquake could cause lowering or raising of the lower Wairau Valley floor, with implications for drainage and flood control. Lowering could occur due to compaction following liquefaction of water saturated, unconsolidated sediments as well as, in the case of the Alpine Fault, vertical fault movement. The effects are likely to be greatest from Grovetown to the coast. Damage to buildings, rail, roads and other man made structures would be widespread. In addition, the intensity of an earthquake can vary considerably depending on subsurface materials. In general, damage is higher for structures built on unconsolidated, water-logged sediments, such as on the valley floors, than on basement rocks. Other forms of earthquake damage could include collapse of aquifers, or their offsetting by fault movement, leading to failure of groundwater supplies.

The DSIR (1989) calculated the mean return periods for earthquakes in the Lower Wairau area as follows:

Intensity (modified Mercalli)	Likely effects	Approx. magnitude (Richter Scale)	Return Period (yrs)
MM VI	Felt by everyone - heavy objects move and plaster cracks.	4.9 to 5.4	5 - 10
MM VII	Very strong - cracking of buildings, plaster falls from ceilings, but well designed buildings little affected.	5.5 to 6.1	20
MM VIII	Destructive - damage considerable in all but well constructed buildings.	6.2 to 6.8	100
MM IX	Ruinous - some damage to well designed buildings and dwellings may be thrown out of plumb, ground fissures conspicuous.	6.9	500
MM X	Destructive - many buildings destroyed.	7.0 to 7.3	
MM XI	Very destructive - few buildings standing.	7.4 to 8.1	
MM XII	Catastrophic - damage total.	8.1 to 8.9	

17.6.2 Objectives and Policies

Objective 1	**To avoid, remedy or mitigate the adverse effects of seismic hazard.**
Policy 1.1	Recognise that Marlborough is in the highest zone of earthquake risk in New Zealand.
Policy 1.2	Establish an emergency recovery project for Marlborough.
Policy 1.3	Maintain emergency procedures in association with Emergency Response.

A large earthquake in the region has the potential to affect more damage in the region than any other natural hazard. However, the potential damage and danger to life posed by seismic hazard is difficult to quantify because it involves many factors, including earthquake magnitude, focal depth, distance from population centres or engineered structures, the response of soils and slopes to shaking and the variable condition on quality of design among many classes of building and public utility networks.

The extent of earthquake awareness and preparedness within the wider community, and especially amongst those tasked with emergency response, is a critical factor in mitigating the effects of earthquakes in Marlborough. These studies provide the basis of strategies for the rapid re-establishment of essential service following a disaster.

17.6.3 Methods of Implementation

Rules	Rules will be used to maintain a relatively low density of development in earthquake risk areas. Rules will discourage development in areas proven to be a liquefaction risk.
Council Activities	The Council will initiate a study to ensure the community can recover quickly from the aftermath of a major event.
Information	The Council will in conjunction with Emergency Response provide information on all aspects relating to earthquake survival through to strategies for coping with the aftermath.
Emergency Response	Maintain an active response programme in association with Emergency Response.

As expressed previously, the scale of an emergency response to an earthquake affecting all or part of the Wairau/Awatere will depend on the size and location of the event and the nature of site response in populated areas.

The extent of earthquake awareness and preparedness within the wider community is a critical factor in mitigating the effects of earthquakes.

17.7 Anticipated Environmental Results

Implementation of the policies and methods for management relating to natural hazards will result in:

- Future use and development of the resources of the Wairau/Awatere that occurs in sympathy with the natural processes operating in the area and risk from natural hazards being minimised;
- Provision of information defining the risk to all sites from known natural hazards; and
- Implementation of emergency response procedures which avoid loss of life and mitigate damage to property and infrastructures prior to events.

18.0 Hazardous Substances and Facilities

18.1 Introduction

Hazardous substances are a part of our everyday lives. Activities that use, store or transport a hazardous substance, or which generate hazardous waste include:

- Manufacturing or processing industries (eg; timber treatment, dry cleaning, spray painting, engineering, boat building and repair);
- Rural industries (eg; pest control);
- Domestic activities (eg; household cleaning, house construction, maintenance and repair); and
- Transport related activities (eg; storage, handling and movement of hazardous substances).

Common examples of hazardous substances are: petroleum products such as petrol, diesel, LPG, oils and solvents; household chemicals such as bleaches, pesticides, paints, adhesives and fuels; and chemical products such as acids, alkalis, pesticides and herbicides.

Control of hazardous substance is necessary to manage the risk of adverse effects arising from their inappropriate storage, use, or disposal. Transport of hazardous substances is adequately covered by transport legislation.

The Environmental Risk Management Authority, under the Hazardous Substances and New Organisms Act 1996 is responsible for managing hazardous substances, and their importation and manufacture.

Pursuant to Section 31 of the Resource Management Act 1991 (the Act), "hazardous substances" will be controlled by the Council under its DISTRICT function.

18.2 Issue

Adverse effects on the environment arising from the storage, use, transport and disposal of hazardous substances.

Under the Act the Council has the functions of controlling land use to prevent or mitigate the adverse effects from hazardous substances and controlling discharges of contaminants to land, water or air. This includes planning for disposal sites that receive hazardous wastes and issuing consents for discharges to the environment.

In this Plan, the management of hazardous substances focuses on those facilities and activities that use, store or dispose of hazardous substances rather than on the substances themselves. In other words the Plan is concerned with the risks posed by the circumstances surrounding hazardous substances and their use rather than the substances in isolation.

Hazardous substance management depends on the immediate environment being protected, the hazardous substance, and the risks involved. Where the risk and potential consequences are low and cumulative effects are unlikely, then management

is a Permitted Activity. Where the risks from hazardous substances are greater the activity is managed as either Discretionary or Prohibited.

Activities involving the use of hazardous substances and facilities can contaminate and reduce water quality. Topography, soil type and vegetation can affect the amount of contamination that occurs. Runoff from land can carry contaminants into streams, rivers, aquifers and coastal water.

Many industrial operations and the majority of residential developments in the Plan area are located over the unconfined aquifers of the Wairau Plains. Adequate controls for hazardous facilities are needed to ensure community health and safety.

The Plan establishes a management regime that minimises the risk of hazardous substances to the community and the environment.

18.3 Objectives and Policies

Objective 1	**Avoidance, remediation or mitigation of adverse effects on the environment and community health caused by facilities and activities involving the use, and storage of hazardous substances.**
Policy 1.1	The establishment of facilities that store and use hazardous substances should not give rise to a level of risk that is unacceptable to the environment or the community's health and safety.
Policy 1.2	Avoid, remedy or mitigate the adverse effects resulting from the discharge of hazardous substances to land and water.

The improper release of hazardous substances into the environment presents a major threat to the life supporting capacity of the environment and community health. Minimising the risks from use is necessary for preventing or mitigating adverse effects on the environment. Definition of this risk occurs through the Hazardous Facility Screening Procedure (see Appendix C, Volume Two) which determines appropriate locations for hazardous facilities.

Important for hazardous facility planning is the avoidance of adverse effects caused by spillage or other accidents. Contingency planning and relevant training are essential to facilitate efficient and co-ordinated emergency responses.

Rural activities may involve discharges of chemicals to land, for example pesticides, herbicides and fertilisers. This is of particular concern in respect of the aquifers which are an important resource for drinking water.

The use of hazardous substances provides benefits to the community by providing products and services. Such use commonly does not involve any unacceptable risks and is controlled by other legislation. However, the Plan needs to address environmental protection aspects.

18.4 Methods of Implementation

Assessment — The Council will assess and manage hazardous facilities with a focus on the hazard potential of those facilities and activities that use and store hazardous substances, including the intrinsic properties of the

	substances themselves. This risk assessment will be based on the combined assessment of the hazard of a substance, its physical form and the manner in which it is used or stored.
Zoning	Zones will appropriately locate activities involving similar levels of risk associated with the use and storage of hazardous substances. Zone based rules define threshold levels for hazardous substance risk and require all hazardous facilities that are permitted activities to comply with performance standards.
Rules	The Hazardous Facility Screening Procedure will be used to assess the risk of an activity or facility and take into account risks associated with the transport of hazardous substances to determine whether the proposal will be permitted or require a consent. The Council will monitor existing facilities to ensure compliance with other relevant legislation. Existing facilities will be subjected to the Hazardous Facility Screening Procedure when they expand or alter their operations. Where it is considered that an existing facility is operating at a level of risk which has or may have a significant adverse effect on the environment, the Council will consider using its enforcement powers under the Act. Resource consents will impose conditions, as appropriate, to take into account relevant standards and Codes of Practice as part of the Hazardous Facility Screening Procedure. Site management plans may be required as a condition of consent. Such plans will put in place measures to reduce the likelihood of accidents occurring while spill contingency or other emergency plans allow the facilitation of efficient and well co-ordinated responses to any accidents. This Plan requires all hazardous facilities that either exceed the threshold effects ratio for the zone or fail to meet the permitted performance standards to be considered as Discretionary Activities.
Monitoring	The Council will maintain a list of all consented users of hazardous substances and facilities as part of the Hazardous Facility Screening Procedure and will monitor changes to their operations or facilities that may pose an increased risk to the environment or community health. The Council will monitor compliance with HASNO and carry out enforcement functions. The Council will monitor hazardous facilities to determine the cumulative effects of activities and ensure they do not create adverse environmental effects or reduce community health.
Agency Co-operation	The Council will co-operate with the Land Transport Safety Authority, NZ. Police, and Department of Labour to monitor the movement of hazardous substances and to ensure that transportation of hazardous substances is undertaken in a safe and efficient manner. The Council will act as a local coordinating body for agencies responsible for legislation, guidelines and codes of practice, to ensure that effective management of hazardous substances and facilities occurs.

	The Council will co-ordinate with ERMA to ensure effective management of hazardous substances and facilities.
Consultation	The Council will ensure public participation in any significant decisions involving hazardous substances or facilities which exceed specified threshold levels, fail to meet environmental standards, or pose a significant risk to the community.
Education	The Council will develop an education program to inform users about safe methods for the transport, use, storage and disposal of hazardous substances. The Council will promote knowledge on hazardous substances and facilities, and relevant regulatory controls. The Council will promote a clean production ethic aimed at reducing the quantity and type of hazardous substances used and the risks associated with that use. The Council will undertake education programs in conjunction with other organisations to inform users of hazardous substances about ways of reducing risks and adverse effects caused by hazardous substances and facilities. The Council will also act as a local source for information about hazardous substances. The Council will promote national industrial standards, codes of practice, and guidelines for the management of hazardous facilities to avoid, remedy or mitigate adverse environmental effects.

It is important to distinguish between hazard and risk of a substance. Hazard is defined by the intrinsic properties of the substance, such as flammability or toxicity. Hazard determines what environmental effect the substance is likely to have. Risk is defined by the probability or likelihood of an effect occurring. In other words, risk is a combination of three factors, being the intrinsic hazard of the substance, the manner of use of the substance and the environmental sensitivity to the substance. The hazard is usually fixed while the use and environment can be modified. The manner in which the substance is stored or handled, and in what quantities can alter the level of risk (i.e. the design of industrial sites and site management practices, safety controls and contingency and emergency provisions and transportation procedures).

The Hazardous Facility Screening Procedure is a tool for determining the status of a consent. Other essential and complementary elements include consents and performance standards for hazardous facilities. Compliance with industrial standards, codes of practice and guidelines, and site management plans will minimise the risks of adverse environmental or community health effects arising from hazardous substances and facilities.

Proposals involving the use, storage, or transportation of hazardous substances that do not meet the standards prescribed in this plan may still be acceptable given their individual circumstances including the nature of the substance, proposed operational practices, and local environmental conditions. Such proposals will be considered as Non-Complying Activities and assessed in terms of the objectives and policies of this plan and specific criteria for hazardous substances.

Cleaner production and waste minimisation practices will reduce the quantities of hazardous wastes produced by activities using hazardous substances. Improved information and understanding about improvements and cost savings associated with cleaner production systems can reduce the risk associated with hazardous facilities.

One of the most effective ways of achieving safe use of hazardous substances, including agricultural and garden chemicals, is to ensure that users fully understand the adverse effects of misuse and therefore appreciate the use of best operational practices.

Monitoring hazardous facilities, including storage, use and transport of hazardous substances will identify activities that can have adverse effects on the environment or community health. Monitoring can also determine if several hazardous facilities are producing a cumulative adverse effect. Monitoring will reduce the likelihood of dangerous or unauthorised activities which can have adverse effects on the environment or community health.

Promotion of knowledge will enable the community to identify hazardous substances and know how they should be managed to avoid adverse effects on, and risks to, the environment. Community participation is an important element in the assessment of environmental risk. It is important to provide an opportunity for community consultation in respect of proposals that have wide community significance.

18.5 Objectives and Policies

Objective 1	**Avoidance, remediation or mitigation of adverse effects on the environment and community health presented by the disposal of hazardous substances.**
Policy 1.1	Facilities for disposal of waste hazardous substances must avoid, remedy or mitigate the discharge of contaminants into the environment which are likely to produce adverse effects.

Waste hazardous substances require careful disposal to avoid adverse effects on the environment. Effects include contaminated sites. Disposal involves a range of technologies including incineration, reprocessing and co-disposal in landfills.

The present landfills are not suitable for co-disposal and are to be closed before the year 2000. Transfer stations will accumulate all hazardous (and non-hazardous) wastes for transport to a central landfill.

It is necessary to have information in order to ensure that adverse effects arising from the transport of hazardous wastes can be identified and managed. There is a need for national agreement on requirements for transporting hazardous substances and hazardous substance information systems.

18.6 Methods of Implementation

Education	The Council will co-ordinate hazardous waste disposal operations and develop associated management strategies, including fostering a cleaner production ethic and promoting industry based waste management programs.
Incentives	The Council may initiate pick up and disposal programs for unwanted hazardous substances. The Council will provide transfer stations for the collection and temporary storage of hazardous wastes, including domestic

	hazardous wastes, before they are transported to more appropriate facilities.
Information	The Council will participate in national initiatives to develop compatible inter-regional hazardous waste tracking systems.
Liaison	The Council will co-operate with national and inter-regional initiatives for managing transport of hazardous wastes and developing waste tracking systems.

The Hazardous Substances and New Organisms Act 1996 provides for the development of a nationally co-ordinated hazardous substances tracking system.

18.7 Objectives and Policies

Objective 1	**Avoiding, remedying or mitigating the adverse effects on the environment and community health caused by contamination from past discharges of hazardous substances and avoidance of future contamination of sites.**
Policy 1.1	Promote the management of contaminated sites to avoid, remedy or mitigate any adverse environmental effects or risks to community health resulting from the use of the site or discharges from the site.
Policy 1.2	Rehabilitation of contaminated land with effective site control measures, including monitoring, prior to future redevelopment, change of use, or occupation.

Contaminated sites need to be managed to avoid adverse effects on the environment. This management is especially important before redevelopment takes place. Any clean up activities need to avoid or mitigate any adverse effects on the environment and be appropriate to the end use of the site.

18.8 Methods of Implementation

Rules	Rules require site management practices which ensure that risks to the environment and community health are avoided, remedied or mitigated. The Council will require all users of hazardous substances and producers of hazardous wastes to adopt measures aimed at minimising quantities of waste produced and controlling the adverse effects on the environment of discharges and disposal of any such materials (particularly avoid creating future contaminated sites).
Guidelines	The Council will promote the use of the Australia and New Zealand Environment and Conservation Council (ANZECC) guidelines for the management of contaminated sites. The Council will provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.

Information	Compile a database of contaminated sites and prioritise them in terms of degree of contamination and associated risk to the environment and community health. Risk assessment procedures for identified contaminated sites will be carried out in conjunction with owners and occupiers and other interested parties.
Monitoring	The Council will monitor seriously contaminated sites and determine the need for any special rehabilitation and site control measures.

The establishment of a database listing and ranking contaminated sites is a prerequisite to the management of those sites. Contaminated sites must be managed and cleaned up in a manner that prevents adverse effects on the environment and community health.

Monitoring seriously contaminated sites is a priority for assessing the adverse effects of those sites.

Public consideration and assessment of changes in the use of contaminated sites are necessary to ensure adequate clean up procedures are undertaken. This will ensure that adverse effects of contaminated sites are avoided or mitigated prior to redevelopment.

18.9 Anticipated Environmental Results

Implementation of the policies and methods relating to hazardous substances will result in:

- The avoidance or minimisation of adverse environmental and human health effects and risks associated with the use, storage or transport of hazardous substances;
- A greater public and user understanding of the need for, and risks associated with, hazardous substances and facilities, including the need for safe and effective management practices;
- A reduction in the quantities of waste generated through the adoption of cleaner production methods; and
- Increased knowledge of, and control over, actual and potential contaminated sites, including requirements for ongoing monitoring and active cleanup of seriously contaminated land.

19.0 Land Transport

19.1 Introduction

The land transport infrastructure of Marlborough forms a significant component of the physical resources of the District. The network of roads, rail, cycleways, and pedestrian pathways; and the movement of vehicles, goods, and people through that network; are essential to the District's economic activity, and to the convenience and wellbeing of the people of Marlborough. The resource management issues associated with land transport focuses on the sustainable management of the physical infrastructure of transport network, as a resource, and on the services that use them, and the adverse environmental effects that arise from the network.

Rail has a significant role in freight and passenger movement through the District. The main trunk railway passes through the Plan area. There is a proposal to relocate some inter-island ferry operations to Clifford Bay, which would affect patterns of rail and road traffic, both within the region and nationally. Such a terminal would be of considerable importance to the transportation of people and freight, by road and rail.

Responsibility for the provision and maintenance of the land transport infrastructure is shared between a number of organisations including:

- Marlborough District Council (for local roads, pedestrian paths and facilities, cycleways and facilities);
- Transit New Zealand (for the State Highways);
- Tranz Rail (for the main trunk railway and rail yards); and
- Individual land developers (in creating new public and private roads and transport facilities).

Achieving an appropriate mix of land transport infrastructure requires the combined efforts of all agencies.

The safe and efficient transport of people and produce relies on appropriate interaction between land and water modes of transport.

19.2 Issue

The adverse effects from the development, maintenance and use of the transport infrastructure on the resources and wellbeing of the community of the Wairau/Awatere.

The construction and maintenance of transport infrastructure can cause adverse effects on the environment. The location of new road alignment is often limited by engineering factors but can scar the landscape or cause siltation of waterways. Adverse effects of transport infrastructure need to be considered in relation to community health, safety and wellbeing.

The use of transport infrastructure and transportation activities can give rise to localized adverse effects including: reduced safety; loss of amenity due to noise, dust, and vehicle exhaust emissions; and contamination of resources from surface water run-off from roads, and discharges and spills from vehicles. Effects on the

environment also include the global cumulative effect of vehicle emissions on components of the atmosphere and ozone depletion.

There is considerable investment in the land infrastructure of the Wairau/Awatere. The infrastructure includes roads, railway lines and facilities, pedestrian pathways and facilities, street lighting, vehicle parking facilities, and directional and safety signage. To be effective, the land transportation network will need to be monitored, upgraded and redeveloped from time to time.

It is important that extensions are compatible with the existing infrastructure and have consistent design, construction and maintenance standards. Extensions to the roading network that unnecessarily duplicate existing roads or which create intersections with difficult safety conditions will not be compatible with the sustainable management of the transport infrastructure.

Provision for vehicle parking is important to the sustainable management of the transport infrastructure. It is important to achieve a balance between parking clear of moving vehicles and the shared use of roads by moving and parked vehicles. In general, it is expected that on-site parking will accommodate the likely demand for parking resulting from activities on the site.

Public transportation serving the urban areas is not a feature of the transportation network which is comprised mainly of private motor vehicles and taxis.

The transport of primary products can place strain on the capacity of the local roading network and create conflicts with other users of the often narrow, metalled roads. Expansion in primary and other industries gives rise to particular needs of access, loading and storage areas close to the transport network. Changes in long-haul freight transport patterns and vehicles have also given rise to demands for new facilities in the transport infrastructure such as overnight parking areas for heavy goods vehicles, and stock effluent disposal facilities.

Roads, as public spaces, are used for a variety of purposes. The Plan recognises and provides for a variety of community uses of roads.

It is important that the transport infrastructure is able to adapt. New types of vehicles and changing social patterns may give rise to new transport facilities. The growth of cycling for recreation and transport means that there is an increasing need to provide cycle lanes on existing and new roads. The Plan should ensure that such change within the transport infrastructure is able to be accommodated provided that adverse effects are avoided, remedied or mitigated.

19.3 Objectives and Policies

Objective 1	**Development, maintenance and use of land transport infrastructure in a way that avoids, remedies or mitigates adverse effects on the Wairau/Awatere environment, and on the health and safety, and wellbeing of the community.**
Policy 1.1	Avoid, remedy, or mitigate adverse effects from the land transport infrastructure on the amenity values and natural and physical resources of the Wairau/Awatere.
Policy 1.2	Ensure all new roads and extensions to existing roads are consistent with the District roading hierarchy in the Regional Land Transport Strategy, and that all subdivisions and developments of land

	incorporate provision for the connection of future stages of development to existing roads consistent with the roading hierarchy.
Policy 1.3	Unless a paper road is capable of meeting current road standards connection to the existing road network will not be permitted.
Policy 1.4	Require that all new or extended roads are appropriate and necessary to provide safe and convenient access; and will avoid future inappropriate subdivision and development in the coastal environment.
Policy 1.5	Maintain amenity values by encouraging the use of national and arterial roads by high volumes of traffic and heavy vehicles; and discourage high volume and heavy traffic use of collector and distributor roads which serve rural areas, or pass through residential areas.
Policy 1.6	Require all service providers using overhead reticulation within the road reserves of State Highways to co-ordinate and execute undergrounding of all reticulation associated with these services, and the subsequent removal of all redundant poles, in order to enhance the main entrance routes into and through Blenheim.
Policy 1.7	Require all new roads, and upgrading of existing roads, to be designed and constructed to standards to mitigate adverse environmental effects and enable safety and efficiency of vehicle movement including: • Urban: roads, access ways, and private ways to be sealed to an all-weather hard surface standard, and have overhead lighting, where appropriate; • Rural: roads, access ways, and private ways to be finished with an all-weather sealed or metalled surface appropriate to the expected volume of vehicle traffic; • Public roads to have sufficient width to provide, where appropriate vehicle carriageways capable of carrying two lanes of moving traffic (except for very short local roads where traffic volumes are insufficient to warrant two lanes) and except for low-speed residential lanes); • Public facilities including pedestrian footpaths (on one or both sides of the road except for low-speed residential lanes) as appropriate in urban situations; • Above-ground and sub-surface public reticulated services; • Street lighting, drainage; • Landscaping, road-side vehicle parking; • Safety barriers and fences; • Roads to have vertical alignment such that inclines can be negotiated during all weather conditions and sight distances are adequate for road safety; • Intersections to ensure adequate sight distances, and lighting where appropriate, having regard to expected traffic volumes, speeds on approach roads, and other local features likely to influence safety at the intersection;

	• Cul-de-sacs to incorporate an area where light vehicles (cars) can turn without reversing manoeuvres, and to enable larger vehicles to enter and leave in a forward direction after using reversing manoeuvres.
Policy 1.8	Require all crossing places connecting sites to public roads to be constructed between the kerb line and the property boundary in such a way as to avoid, remedy or mitigate any adverse effect on the safety or convenience of users of public footpaths.
Policy 1.9	Ensure that buildings in commercial areas, located adjacent to pedestrian footpaths, provide overhead shelter for users of those footpaths (e.g. overhead verandahs).
Policy 1.10	Enable use of public roads for a range of community activities.
Policy 1.11	Ensure that the cost of new roading, which is needed to provide access to new subdivision or development, is met by the developer, and that upgrading of existing roads that is needed as a result of development is contributed to by the developer.

These policies recognise the adverse effects that can be caused by the transport infrastructure and transport activities and intend that adverse effects be avoided, remedied or mitigated as appropriate. Construction and maintenance of the land transport network will be subject to the same procedures as similar land use activities in order to avoid, remedy, and mitigate adverse effects on the environment.

The Council has prepared a Regional Land Transport Strategy which defines the hierarchy of significant roads within the District. The roading hierarchy represents the intended status and function of roads and determines their design and speed characteristics. It would be inappropriate for new roads to be incompatible with the hierarchy. Future subdivision and development of land serviced by roads should have those roads consistent with the roading hierarchy.

Assessment of the necessity, appropriateness, and efficiency of all new roads is an important consideration in achieving sustainable management of the roading infrastructure.

Road surface and gradient are particularly important to road safety and environmental effects including discharge of water and contaminants. Where higher volumes of traffic are expected, on urban roads, road surfaces should be hard-surfaced for long-term wear and tear and ease of maintenance. Rural roads which carry lesser volumes of traffic will not always warrant the cost of hard surface finish at construction. However, maintenance of road surfaces needs to avoid, remedy or mitigate any adverse effects.

As a matter of public safety and convenience all new roads, except those which are very short no-exit roads or are low-speed residential lanes, should be capable of carrying two lanes of traffic. The design width of a road will depend on its status within the roading hierarchy but must be sufficient to accommodate the services and facilities usually expected within roads. Roads provide the servicing trenches for several essential public services. In some circumstances facilities such as footpaths, cycle lanes, vehicle parking, and landscaped berms may be appropriate. It is important that the road's future function be fully understood at the time of its design and that it be sufficiently wide to accommodate that function.

In the interests of safety, the Council expects cul-de-sacs to have sufficient dimension to enable small vehicles and moderate sized trucks to enter and leave in a forward direction. It is considered that a larger design dimension to permit heavy vehicles to enter and leave in a forward direction would be unreasonable because heavy vehicles are expected to be less frequent users of cul-de-sacs except in industrial and commercial zones.

Roads are public spaces heavily used by pedestrians and cyclists, as well as by vehicles. Roads have different safety characteristics at night compared to the daytime. It is important that roads be designed to maximise personal safety of all users. Street lighting and separation of road users enhance safety for all users of roads.

Access along public roads is unrestricted and provides community-wide benefit. That community-wide benefit is reflected in the funding of road maintenance from District Council rates. Where new roads are extended specifically to connect new subdivisions or developments to the existing road network, the capital cost of that construction should be met by the principal beneficiary of the access being: the subdivider or developer.

Public roads will be designed and maintained to enable their use by public passenger transport services and the Council will continue to provide facilities where demand necessitates.

The current state of vehicle technology in New Zealand means that there are minimum levels of noise and vehicle emissions that must be expected from the operation of vehicles on roads. There is little the Plan can do to modify those conditions. The Plan can control the extent of these effects by adopting a roading hierarchy which encourages higher volumes of traffic and heavy traffic movements on certain routes and discourages them on others.

19.4 Issue

The development of a sustainable road transportation network which allows the Community to function with minimal conflict between land use, traffic and people.

The transportation of nearly all goods and people within the District is undertaken by vehicles using the road network and this situation is unlikely to change significantly in the medium term. It is therefore important to plan the road network to both facilitate accessibility and minimise effects on environments. It is also necessary to ensure that land use activities themselves do not detract from the proper functioning of the network.

The Plan area is served by an existing transportation hierarchy. The hierarchy comprises National Routes, Primary Arterial Routes, Secondary Arterial Routes, Collector Routes and Local Routes.

National Routes form part of a network of strategic importance and are a significant element in the national economy, for which a high level of user service must be provided on a continuous basis. Primary Arterial Routes are of strategic regional importance and are a significant element in the regional economy, for which an appropriate level of user service must be provided. Such roads include those giving access to important tourist areas, and those providing significant intra-urban links. Changes to the National Route may occur if the Clifford Bay Ferry Terminal proposal proceeds.

Secondary Arterial Routes are of strategic district importance and are a significant element in the local economy for which an appropriate level of user service must be provided. Collector Routes are locally preferred roads between or within areas of population or activities, complementing arterial routes, and having pavements and road geometry in keeping with the operational safety standards required for traffic volumes on each section of the road. Local A Roads are all other roads serving more than three residences, and Local B Roads are those serving less than three residences and less than ten vehicles per day.

The classification of roads determines their elements and controls, their width, street lighting, road signs, parking restrictions, activities, etc. A result of designing a road according to its classification is to make the roading pattern clearer to the motoring public.

The "higher" the classification the more priority is afforded to the movement of through traffic and, conversely, the "lower" the order the more priority given to access (pedestrian, servicing and parking). The higher order roads can also be expected to cater for higher traffic flows, although this is not a universal rule. Higher intensity use should not however impair the operational efficiency or safety of the arterial road concerned. To ensure this does not occur direct access to arterial roads may be controlled. A limited increase in traffic generation may be tolerated without alternative access, provided the number of direct access points to the arterial is reduced.

On non-arterial roads, residential density is unlikely to be constrained by capacity, but will be influenced by safety issues and the acceptability of increased flows to existing residents. Safety issues will be influenced principally by carriageway width, alignment, visibility and traffic speed. Where appropriate, techniques will be used to discourage traffic in areas where it would have adverse environmental effects. Such techniques are implemented outside of the Plan, and include road closures, narrowing of carriageways, turn restrictions, one-way roads restrictions, and other bylaw based controls.

19.5 Objectives and Policies

Objective 1	**Continue to maintain and build a hierarchical network of roads.**
Policy 1.1	To protect the function of the road network and the environment of adjacent land uses from the adverse effects of high traffic generators.
Policy 1.2	To plan legal and paved road widths to reflect the different functions of various elements of the road hierarchy. (Refer to General Rules, Volume Two)
Policy 1.3	To take account of social and environmental impacts as well as economic benefits when planning changes to the road network.
Policy 1.4	To manage the establishment of activities in a manner which takes account of the classification and function of the road network in the vicinity and from which access to the site is to be obtained.

Through previous planning regimes and as part of the Council's Regional Land Transport Strategy the Council has adopted a hierarchy of roads in which each road is generally classified with respect to its planned traffic function and the surrounding land uses. The highest classified roads (major arterials) provide for the greatest level of movement with a minimum access function, while local roads provide for very little through movement, but have a major access function. In this way the hierarchical network provides for the efficient and safe movement of people and goods, while reducing the conflicts which arise between traffic requirements and the environment of surrounding areas.

19.6 Issue

The adverse effects of activities on the sustainable management of the land transport infrastructure.

Land use activities can have adverse effects on the safe and efficient operation of the land transport network. Adverse effects on the land transport infrastructure from activities include inappropriately sited entrances that restrict site lines for traffic; road-side stalls that distract and disrupt traffic flows; buildings and trees that shade roads and contribute to ice and/or reduced vision; activities generating high vehicle movements that increase the chance of intersection accidents; night lighting and glare from buildings that reduce visibility of road users; vehicle loading and delivery that interferes with pedestrians' free and safe use of footpaths; advertising signs that distract motorists; and activities that demand off site vehicle parking causing congestion on adjacent roads. Maintaining safe rail crossings is an issue for the few rail crossings throughout the region.

One of the issues that has not been resolved is the question of how to fund road upgrading works and whether contributions should be sought from the industry sectors which place particular wear and tear demands on the roads. No conclusion has been reached on this issue nation-wide and research is continuing by a number of agencies into the appropriateness of such contributions. It remains a possibility for this Plan.

Discharges and accidental spills from vehicles onto roads create a slippery or hazardous road surface for other road users and are an environmental and safety issue. The enforcement provisions of other transport legislation are available to control these incidents.

19.7 Objectives and Policies

Objective 1	**That any adverse effects of activities on the sustainable management of the land transport infrastructure be avoided, remedied or mitigated.**
Policy 1.1	Ensure that subdivision and development of land adjacent to public roads does not compromise the safe or efficient flow of traffic on those roads through increased traffic volumes, kerb-side vehicle parking, or location of access points and intersections.
Policy 1.2	Provide for traffic safety and directional signs and road marking on or adjacent to all road and rail facilities.

Policy 1.3	Ensure that buildings, vegetation and activities do not reduce clear sight lines for trains and road vehicles at level rail crossings, or for vehicles at road intersections.
Policy 1.4	Avoid, remedy or mitigate any adverse effects from activities for any road or rail users, including glare, inappropriate direct lighting, smoke, discharges and shading onto the road, or distractions.
Policy 1.5	Ensure minimum distraction to road users by controlling the location, design, and extent of road side advertising signs, requiring that signs are located within the site to which the sign relates, and avoiding a proliferation of road-side advertising signs.
Policy 1.6	Ensure that activities that generate demand for parked vehicles and which involve loading of vehicles provide space within their site to accommodate manoeuvring, loading and parking of vehicles without creating congestion or conflicts with moving vehicles or with pedestrians on adjacent roads.
Policy 1.7	Require vehicle crossing places and vehicle entrances from public roads to be constructed and maintained to standards appropriate to the circumstances of traffic volume, pedestrian movement, and local traffic speed.
Policy 1.8	Require new urban subdivisions and developments to incorporate facilities to increase the safety and efficiency of non-motorised transport users and particularly require: • Footpaths or access ways intended to be used by both cyclists and pedestrians, and encourage their separation for safety reasons; • Provision for cycle traffic within road carriageways in such a way that lane width, design, and surface finish are adequate to safely accommodate both motorised vehicles and cycles; • Pedestrian access routes connecting residential areas, schools, shopping centres, recreation reserves, and public transport collection points and terminals where appropriate; • Pedestrian footpaths in urban areas: - Adjacent to but separated from vehicle carriageways and private property (except for low-speed residential lanes) by appropriate safety structures including fences, where appropriate; - Constructed with permanent hard surfaces, such as asphalt or concrete; - Constructed to minimise any surface water flow that would be an impediment or hazard to pedestrians; - With pram and wheelchair crossings located at convenient positions in relation to intersections; - With longitudinal profile and surface finish not unduly disrupted by vehicle crossings; - With gradients not exceeding 1 in 6 except in extraordinary circumstances where steps should be provided.

Policy 1.9	Where proposed allotments have access from a public road require that access be suitable for the safe and efficient carriage of vehicles, cyclists, and pedestrians.

The Council has a responsibility to manage the adverse effects of activities including effects on the land transport infrastructure. The Council seeks to ensure that activities are appropriate to the speed and function of adjoining roads. This may mean that in some locations, for reasons of transport safety and efficiency, activities that have specific effects on the transport infrastructure will need to be modified or even prevented from occurring.

It is a normal expectation, in today's society, that households will use motor vehicles. The Council considers that it is reasonable to expect that new allotments will be provided with vehicle access from public roads. That access should be provided between the road kerb line and the property boundary and should be constructed in a way that does not disrupt the safety or convenience of pedestrian use of footpaths.

The Council is committed to minimising accidents at rail crossings and road intersections. The design of all future road intersections will therefore be required to incorporate safe sight distances appropriate to the local environment and location within the roading hierarchy.

Road marking and traffic signs are an important component of the transport infrastructure. The Plan provides for essential traffic safety and directional signs and road names.

Public roads provide a certain amount of kerb-side vehicle parking. It is important to maintain vehicle carriageways for the free movement of vehicles and cyclists and to ensure that parked vehicles do not compromise pedestrian safety. Where activities give rise to demand for vehicle parking they will be expected to make provision, clear of public roads, for that parking. Public roads will continue to be available for supplementary parking for extraordinary events and, particularly in commercial areas, where kerb-side parking maximises convenience for visitors to premises without compromising road safety.

19.8 Methods of Implementation

Rules

The Plan adopts the current District roading hierarchy as the determinant of the status and function of all roads in the Wairau/Awatere Plan area.

Rules are included that:

- Generally permit construction of new roads and railway lines;
- Require all new allotments and development sites to be connected to a public road by a suitable vehicle access way formed to a standard appropriate to the rural or urban circumstances, except allotments with their only access to the coast;
- Permit essential road markings and signs subject to standards controlling their size and location;
- Require all subdivision of land to be assessed against criteria which includes the safety and efficiency of transport routes;

- Control the location, size, and design of advertising signs visible from transport routes;
- Set standards for activities to avoid, remedy, or mitigate adverse effects including effects on transport routes (such as glare, night lighting, smoke and dust discharges, liquid discharges, and shading from vegetation);
- Control building location to maintain clear sight lines to all intersections and rail level crossings;
- Specify:
  - Standards to be applied to the design and construction of public roads, private roads and access ways;
  - Provisions required for non-vehicle land transport including facilities for pedestrians, cyclists, and people with disabilities;
  - Where an existing road is extended or upgraded to serve a subdivision the Council will require the subdivider, as a condition of subdivision consent, to pay the full cost or contribute to the cost of the extension or upgrading in accordance with the level of benefit the upgraded road provides for the subdivision compared with other road users;
  - Amount of on-site vehicle parking required in association with land use activities;
  - Requirements for loading and access facilities required for activities which involve loading or delivery vehicles;
  - Standards for the construction and maintenance of vehicle crossings which seek to maintain public safety.

The Plan provides for all public roads and parking areas as designated public works and will enable usual works and activities associated with roads within their boundaries.

The Plan recognises designated railway lines and rail facilities.

Proposed subdivisions and developments which create new roads or access ways will be assessed in terms of the objectives and policies of the Plan and will be required to comply with the specified standards. Where applications for resource consent are required, conditions may be imposed to ensure adequate provision for all forms of land transport including vehicles, pedestrians, cyclists, and persons with disabilities.

All proposed extensions to the physical transport infrastructure will be assessed in terms of the Plan's policies relating to protection of the qualities of natural and physical resources (including water quality, land disturbance, landscape quality, protection of archaeological and historic sites).

Transportation activities are subject to the Plan's rules relating to environmental effects, including discharges to land, water, and air.

Annual Plan	The Council will continue to make provision for capital works and maintenance of land transport infrastructure throughout the Wairau/Awatere Plan area.
Code of Practice	The Council has developed a Code of Practice for Subdivision and Development which serves as a practical guideline for the construction of roads and other services infrastructure. Compliance with the construction methods stated in the Code will be accepted as compliance with the standards specified in the Plan.
Subdivision Standards	Provision will be made for subdivision and development to be designed in accordance with recognised Subdivisions Standards (such as NZS4404:2010) where meeting such standards meets or exceeds the anticipated environmental results.
Advocacy	The Council will pursue with telecommunication and electricity service providers the undergrounding of reticulation on Nelson Street/Middle Renwick Road from Grove Road to Rose Street in order to enhance this entranceway to Blenheim. The Council will not consent to any redundant power poles being made available for use by another network operator.
Other	The Council will continue to maintain and extend the network of pedestrian and cycle routes and facilities throughout the Wairau/Awatere Plan area. The Council will continue to work with other agencies, notably Department of Conservation, in maintaining and upgrading the network of recreational walkways throughout the Wairau/Awatere Plan area. The Council will continue to maintain and upgrade facilities for cyclists on existing roads and will continue to work with Transit New Zealand to upgrade facilities and safety for cyclists on the State Highways. The Council will work with New Zealand Police (Traffic Safety Service) to encourage heavy vehicles to use the national and arterial routes indicated in the roading hierarchy. The Council will seek, through appropriate road signage and road speed environment, to ensure that high volumes of traffic use the national and arterial routes indicated in the roading hierarchy in preference to collector and distributor routes.
Liaison	The Council will continue to liaise with Central Government in terms of national initiatives to monitor and reduce overall emissions affecting the atmosphere and the Government's commitment to reduce carbon emissions by the year 2000. The Council will forward copies of resource consents and subdivisions of land adjacent to state highways to Transit New Zealand to ensure that any adverse effects on the safe and efficient operation of the state highway network are able to be identified and avoided, remedied, or mitigated as appropriate using either the Resource Management Act or the Transit New Zealand Act. The Council will forward copies of resource consents and subdivisions of land adjacent to the Main Trunk Railway Line to Tranz Rail Limited to ensure that any adverse effects on the safe

and efficient operation of the railway line are able to be identified and avoided, remedied or mitigated as appropriate using the Resource Management Act.

The Council will continue to work with Traffic Safety Service, transport operators and Transit New Zealand to minimise the incidence of accidental spillage onto roads.

The Council is the agency with primary responsibility for the District road infrastructure, including facilities for pedestrians and cyclists. Changes to the road network will occur primarily through new subdivision and development. Given the importance of land transport infrastructure to the community, Plan rules and resource consent applications are considered to be the only way to ensure appropriate location and alignment of new roads and to ensure consistent high standards in the design and construction of new roads and other transport infrastructure.

Designation of public works including transport infrastructure and facilities is a method available under the Act. The Council will consider notices of proposed new designated transport works in terms of the objectives and policies of the Plan.

The Plan specifies the standards to be met and subdividers and developers can employ whatever methods are appropriate to meet those standards. The Council is able to offer the Code of Practice for Subdivision and Development as a means of compliance with specified standards.

The Council will continue, in association with other agencies, to improve infrastructure and facilities for pedestrians, cyclists and public transport passengers and will continue to maintain and improve the safety and efficiency of the road network.

The Plan recognises existing roads through designations. New and extended roads will be considered on their merits as new designations and be assessed in terms of the policies of the Plan relating to environmental quality.

The Plan adopts the regional roading hierarchy and accepts a certain level of effects from transportation activities along national and arterial routes. It will be the non-Plan initiatives of the Council and other agencies which will encourage traffic to use appropriate routes within the hierarchy.

Council acknowledges the Government's commitment to reducing overall carbon emissions to the atmosphere and acknowledges the significant contribution to emissions made by vehicles. The reduction of these emissions relies on a co-ordinated national strategy, rather than piecemeal initiatives of individual authorities. The Council will therefore remain in touch with the development of any national strategy and is prepared to become involved with initiatives and programs as they are developed.

The Plan is considered to be the most appropriate and effective means of controlling the adverse effects of activities on and from the transport infrastructure and activities. In the case of District roads, the Council is able to assess the likely effects of activities. The Council will, in the case of state highways, recognise Transit New Zealand's role and interest in maintaining safe and efficient highways and will ensure that Transit New Zealand is aware of proposed activities likely to affect the highway. Transit New Zealand has powers under the Transit New Zealand Act to control the location and design of state highway crossings and remove trees shading roads. Remedies under this legislation should be used where appropriate to control adverse effects.

Transit New Zealand has produced a guideline "Planning for a safe and efficient State Highway Network under the Resource Management Act 1991" which is a useful reference when considering the effects of land use activities adjacent to highways. The

Council will continue to use this document as a reference when considering applications for resource consent which have implications for the land transport infrastructure.

19.9 Anticipated Environmental Results

Implementation of the policies and methods for land transport will result in:

- A land transport system capable of safely and efficiently moving people, goods and vehicles, where practical, throughout the Wairau/Awatere Plan area and beyond;
- Minimal interference, caused by land use activities, to the safe and efficient movement of people, goods and vehicles throughout the land transport networks of the Wairau/Awatere Plan area; and
- Minimal adverse effects on the natural and physical resources, the amenities of the environment and the landscape resulting from the construction and maintenance of the land transport infrastructure and operation of transport activities.

20.0 Utilities

20.1 Introduction

Utilities form an essential part of community infrastructure. Utilities must be maintained and developed in order to contribute to the health and safety, and social, cultural and economic wellbeing of the community. Most communities are unsustainable without the provision of water supply, drainage, sewage disposal, energy and communications. Reticulated provision of essential utilities enhances the efficient use of natural and physical resources, and enables consistent management of adverse environmental effects of human settlement.

Utilities include:

- Energy, electricity lines, cables, pylons, receivers, transmitters, substations;
- Telecommunication and radio communication, lines, cables, masts, antennas, dishes, aerials, microwave towers, telephone booths;
- Water, collection and distribution structures, water supply catchments, water pipes, open drains, irrigation channels, stock water races, reservoirs, treatment plants;
- Stormwater collection and removal facilities, pipes, pumping stations, treatment plants, ponds;
- Sewage collection structures, pipes, pumping stations, treatment plants, ponds;
- Air, land and water navigation aids and beacons;
- Trig stations and survey marks;
- Street lighting structures and traffic direction and control devices; and
- Road and rail networks.

20.2 Issue

Adverse environmental effects resulting from the establishment, maintenance and operation of utility networks necessary to sustain communities.

There are three main reasons why particular provision is being made for utilities. These reasons are:

- Utility networks provide services, such as water and electricity, that are essential to the health and safety of the community;
- Reticulated and integrated utility provision is essential to avoid cumulative adverse effects of settlements on the environment; and
- Utility networks require an integrated and comprehensive infrastructure which treats them as whole units rather than addressing their individual parts.

The maintenance and development of utility networks can have adverse land stability, water quality and visual effects. Some utility network structures, such as transmitters and masts, need to be sited in prominent positions in the landscape in order to fulfill their function. The essential nature of utility services, the specificity of site

suitability, and the adverse effects of their prominence all need to be taken into consideration.

Adverse visual effects tend to be the most obvious and persistent while land disturbance and adverse water quality effects are generally related to construction and maintenance and tend to be short-term. Other adverse effects can include noise, electro-magnetic radiation and interference between similar electrical and telecommunication equipment.

20.3 Objectives and Policies

Objective 1	**To provide for the operation, maintenance and development of utility networks in a way that promotes sustainable management of natural and physical resources and avoids, remedies or mitigates adverse effects on the environment.**
Policy 1.1	Enable Utility Operators to maintain and develop reticulated utility networks throughout the Plan area provided adverse environmental effects are avoided, remedied or mitigated.
Policy 1.2	Enable individuals to contribute to or provide their own utility needs in appropriate areas.
Policy 1.3	Ensure Plan provision for sustainable management of utilities and planning certainty for Utility Operators.
Policy 1.4	Enable buildings, structures and equipment necessary or ancillary to utility networks to be established throughout the Plan area.
Policy 1.5	To ensure that when development occurs the full costs of remedying or mitigating adverse effects on the environment are met.
Policy 1.6	Assess proposals for new utilities by acknowledging the necessary roles, and the locational and operational constraints they experience.
Policy 1.7	Require construction and maintenance practices which avoid, remedy and mitigate land disturbance associated with utility management.
Policy 1.8	Ensure that utility network construction, maintenance and operation avoids, remedies or mitigates adverse effects on water quality.
Policy 1.9	Enable the provision of individual water supplies and electricity generation where appropriate to supplement services to rural households.
Policy 1.10	Locate utility network structures to avoid, remedy or mitigate significant adverse effects on visual amenity.
Policy 1.11	Encourage utility networks to be placed underground in urban areas and, where practicable, in areas of identified landscape significance.
Policy 1.12	Promote the establishment of utilities in locations in such a way as to not adversely affect any known natural hazard.

Policy 1.13	Co-locate services, structures and ancillary equipment where practicable.

As settlements such as Blenheim and Renwick continue to expand there is a continued demand for utilities. The Plan encourages the provision of co-located networks in order to avoid cumulative effects of piecemeal service provision.

To enable the sustainable management of utility networks as a resource, operators of those networks require consideration of the demands for and provision of services at the earliest possible time. These policies seek to ensure early consideration and provision of utilities and thereby avoid cumulative effects of provision of similar services by individual communities.

The establishment of utility networks can have adverse effects on resources and amenities, and defined areas of special interest. Policies seek to ensure that the construction and maintenance of utility networks will not have adverse effects on identified areas prone to natural hazards, or areas with ecological or landscape value.

20.4 Methods of Implementation

Rules	Rules provide for utility networks as Permitted Activities, subject to standards and terms where there are minor adverse environmental effects. The placement of equipment underground and in or alongside road carriageways reduces likely disruption from natural hazards and long-term visual effects, and minimises land disturbance. Plan rules require special consideration for the location and construction of utilities in areas of identified special interest including natural hazard prone, ecological and landscape value.
Other Statutory Documents	The Annual Plan provides a vehicle for setting priorities for provision of Council operated utility networks.
Information/ Codes of Practice	Most Utility Operators conduct their operations according to industry-based codes of practice. Landscape and screening guidelines are often included in these codes. The Marlborough Code of Practice for Subdivision and Development establishes a means of complying with the Plan's requirements.
Designation Process	This Plan recognises and provides for designations established by Utility Operators.
Liaison	The Council will liaise with Utility Operators to ensure continued provision of utility network services throughout the area.
Monitoring	Council monitoring of compliance with Resource Consent conditions and the results of State of Environment Monitoring will provide feedback on the adverse effects of utilities. Provisions built into industry-based codes of practices for Utility Operators specify monitoring requirements. The incidents of public health issues relating to utility networks will indicate the effectiveness of utility management.

Information/ Advocacy	Energy and water conservation devices and systems will be promoted.
Other Legislation	The Council will continue to administer the requirements of the Building Act relating to aspects of utility provision including water supply, drainage, waste disposal and electricity.

Plan rules enable utility operators to sustainably manage their structures, buildings and facilities provided adverse effects are avoided, remedied or mitigated. The health, safety, and wellbeing of the community is dependant on the services provided by utility networks. However, the provision of these services should not allow reduction of amenity values or cause adverse effects in the environment.

There is a continuing need for consultation and exchange of information relating to the operation and maintenance of utility networks. Utility Operators, customers and the Council all need to remain aware of the many statutes, controls and guidelines relating to the provision of utility services.

20.5 Anticipated Environmental Results

Implementation of the policies and methods for the management of utilities will result in:

- Sustainable utility networks which operate without adverse environmental effects; and
- Small settlements with sustainably managed community-based utility services.

21.0 Outdoor Advertising

21.1 Introduction

The purpose of outdoor advertising is to provide information to the general public and attract business. Information is conveyed for a number of purposes which include: identifying properties, giving notice of forthcoming events, informing of the availability of goods and services, and to give directions to traffic. Signs are essential through the Plan area for the information they provide.

The ability of the environment to accommodate signs varies considerably between town centre, residential and rural areas. Amenity standards vary between different parts of the Wairau/Awatere area, and are defined by the range and nature of land uses in an area. The susceptibility of different areas to be adversely affected by outdoor advertising varies considerably, particularly between town centre, industrial or other business areas, and rural or residential areas. The highest concentration of outdoor advertising is in town centre areas where a greater number and size of signs is accepted, in keeping with the scale and nature of the site and activities. However, in residential and rural areas, where the maintenance and enhancement of amenity standards is considered important, the potential adverse effects of signage are viewed more critically.

21.2 Issue

There is a need for signs but they may have adverse effects on visual amenities and traffic safety.

There is a need for signs to allow people to provide for their wellbeing, however, in order to avoid adverse effects on amenity values and people's health, safety and wellbeing, some controls on signs and outdoor advertising are required. There is also the possibility that signs and other forms of outdoor advertising may have adverse environmental effects particularly on visual amenities, and may conflict with traffic safety.

In particular, from a traffic safety viewpoint, careful consideration needs to be given to the location, design, size, or type of signs along major arterial routes, where the potential for conflicts with traffic safety are highest. All outdoor advertising on State Highway land is subject to the controls specified in the Transit New Zealand Bylaw 1987/3. Signs for State Highway or road purposes are permitted as an integral part of the road designation. Any other signs located on State Highway land and other designated roads have the same potential adverse effects on traffic safety as on-site signs, and need to be controlled through this Plan.

21.3 Objectives and Policies

Objective 1	**Signs and outdoor advertising which convey necessary information while avoiding or mitigating any adverse effects on public safety and the visual amenities of the Wairau/Awatere.**
Policy 1.1	Control outdoor advertising variably throughout the Plan Area in recognition of the character and amenity of particular areas.

Policy 1.2	Avoid the display of outdoor advertising which may adversely affect traffic safety by causing confusion or distraction to, or obstructing the view, of motorists or pedestrians.
Policy 1.3	Provide for signs on the same site as the particular activity, or use of land or buildings, to which they relate.
Policy 1.4	Support the establishment of 'welcome to' signs and information laybys, at the entrances to the region and towns and at sites of natural, cultural or historical interest.
Policy 1.5	Encourage the use of information laybys and kiosks.

Signs and other forms of outdoor advertising are a necessary part of the community's social and economic activities, but must be controlled to protect public health and safety, and to minimise their adverse effects on amenity values in the district.

The policies recognise that signs need to be controlled although different environments within the Plan area have different levels of sensitivity to the potential adverse effects of signs. The potential adverse effects of outdoor advertising on traffic safety are of particular concern to the Council.

The erection of signs on the site where an activity is undertaken is accepted as part of that activity. However, signs which are located off-site in order to attract customers to another site are discouraged. The Council will require an application to be made for the erection of off-site signs in order for the necessity and appropriateness of the proposed sign to be assessed.

The establishment of information and laybys provide an important service to visitors and an opportunity for local businesses to notify their location and services.

21.4 Methods of Implementation

Rules	Rules to control the location, number, size and type of outdoor advertising and signs are included for all zones and are appropriate to the zone concerned.
Control	The Council will, as the authority responsible for all roads (other than state highways) exercise control over advertising on roads.
Consultation	The Council will consult with Transit New Zealand regarding the implementation of Transit New Zealand Bylaw 1987/3 restricting advertising signs on State Highways.
Annual Plan	Through the Annual Plan, as resources are available, support the establishment of information signs for towns and for sites of natural, cultural and historical interest.
Education	The Council will make people aware of restrictions on the erection of signs and educate them as to the need for such restrictions.

The Council considers that rules controlling the erection of outdoor advertising and signs in the Wairau/Awatere area are the most effective method to avoid any potential adverse effects on traffic safety and visual amenity while recognising that particular

areas have different needs for signs and sensitivities to the potential adverse effects of signs.

The Council considers that the establishment of information signs and laybys is an effective way of providing for signs and information, while protecting visual amenities of the Wairau/Awatere area.

21.5 Anticipated Environmental Results

Implementation of the policies and methods relating to outdoor advertising will result in:

- Outdoor advertising necessary to convey information of the social, economic and cultural welfare of the community;
- Minimal adverse effects from outdoor advertising on traffic and pedestrian safety;
- Avoidance of any adverse effects of outdoor advertising on visual amenities; and
- The establishment of information signs and laybys at the entrances to townships and at other sites of natural, cultural and historic interest.

22.0 Noise

22.1 Introduction

Noise is a normal part of most activities and a necessary part of day to day life. Provision for appropriate activities through the Plan needs to include provision for appropriate or acceptable noise associated with those activities. At the same time, unreasonable, excessive or unnecessary noise should be controlled. Whether noise should be subject to control will depend in many cases on the circumstances. For example, lower noise levels are properly associated with residential amenities however this needs to be balanced in particular circumstances with associated or nearby non-residential activities. Noise can affect people physically, psychologically and socially. Absence of adverse noise effects positively contributes to amenity values and is consequently an indication of sustainable resource management.

Generally, complaints occur when noise is at sufficient levels to create adverse effects. The desirable upper limit for night time noise exposure is determined by criteria to protect from either disturbance to the onset of sleep or awakening thresholds for the average person. However, adverse effects of noise are subjective and influenced by:

- Time, frequency and duration of noise;
- Individual sensitisation to a particular noise; and
- Vibration.

Most frequent noise related complaints arise from:

- Music - band practice, parties;
- Industrial operations - generators, processing equipment and machinery;
- Transportation - vehicle movement, loading and unloading vehicles;
- Rural activities - crop sowing, tending and harvesting machinery and equipment, animals, bird scaring devices, wind machines;
- Hobbies/Home occupations - power tools, machinery; and
- Barking dogs.

22.2 Issue

The need to provide for sound associated with appropriate activities whilst addressing any adverse effects of noise, including those effects on environmental and amenity values.

These adverse effects of noise could include:

- Sleep disturbance;
- Stress;
- Disturbance and stress related health problems;
- Disruption of speech and hearing;
- Interference with concentration;

- Disturbance with relaxation; and
- Reduction of amenity values.

22.3 Objectives and Policies

Objective 1	**Protection of individual and community health, environmental and amenity values from disturbance, disruption or interference by noise.**
Policy 1.1	Avoid, remedy or mitigate community disturbance, disruption or interference by noise within coastal, rural and urban areas.
Policy 1.2	Include techniques to avoid the emission of excessive or unreasonable noises within the design of any proposal for the development or use of resources.
Policy 1.3	Accommodate inherently noisy activities and processes which are ancillary to normal activities within industrial and rural areas.
Policy 1.4	Avoid, remedy or mitigate the adverse effects of noise caused by vehicle movement by implementing a roading hierarchy.
Policy 1.5	Avoid, remedy or mitigate the adverse effects of noise caused by the use of audible bird-scanning devices on: • Public health and safety; and • Amenity values.

Residential areas have noise levels that create an amenity value conducive to rest, relaxation and sleep.

Commercial and industrial areas have amenity values which are noisier than residential areas but still require limitations on excessive or unreasonable noise. The noise from some processes in industrial areas cannot be avoided.

Transport corridors are known and expected to be subject to higher noise levels than some other areas. The segregation of noise sensitive activities from such corridors and appropriate acoustic treatment of buildings or places where such activities occur are practicable ways of avoiding, remedying or mitigating noise effects.

Notwithstanding existing use practices, the noise generated from these activities is still subject to the obligations imposed under Section 16 of the Act, which requires occupiers of land to adopt the best practicable option to ensure that the emission of noise from land does not exceed a reasonable level.

Rural areas are often perceived to be quiet, tranquil places - but this is not always true. Many rural activities involve noisy mobile equipment and machinery with some special audible characteristics of that noise (eg; birdscaring). People living in rural areas have to accept, as part of their lifestyle, reasonable noise that is generated by legitimate rural activities, including that generated by animals.

Although there is a duty under Section 17 of the Act to avoid, remedy or mitigate any adverse effects, the Council recognises that the principle rural activities inherently involve effects that may not meet the expectations of an urban environment. These urban activities at the rural/urban interface must expect to compromise their urban

amenity expectations where there are justifiable and reasonable effects as a result of primary production activities in the rural environment.

Rural activities cannot operate in such a manner that the amenity values of rural areas are reduced. Consequently, rural activities will be required to avoid emission of unreasonable noise and mitigate the effects of noise adjacent to other areas. New Zealand NZS 6082:1991 Assessment of Environmental Sound provides a reasonable basis for assessment of most environmental noise.

22.4 Methods of Implementation

Rules	Set noise performance standards for different areas to reflect the existing amenity values.
Guidelines	Development of guidelines for the operation of inherently noisy rural equipment and machinery (e.g. wind machines, birdscarers). These will address: • Location of activity; • Operation of equipment and machinery; • Operating techniques and hours of operation; • Noise levels relative to notional boundaries; • Design and form of any structures; and • Means to mitigate emission of excessive noise. The Council will provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.
Enforcement	The Council will use the noise abatement provisions of the Act where emission of noise is excessive or unreasonable.
Monitoring	Monitoring of noise to establish annual and seasonal profiles and to ensure compliance with rules and consent conditions.
Research	Support research into looking at options other than the use of audible bird-scaring devices for controlling bird damage to crops.
Consultation	The Council will continue to consult with landowners and industry groups regarding the use of audible bird-scaring devices.

Rules define noise performance standards considered excessive or unreasonable relative to the amenity values in residential, commercial, industrial and rural areas. Where emission of noise exceeds these standards the Council will enforce the standards to protect the amenity values.

Guidelines allow the Council to provide advice to resource users on ways to avoid or mitigate the emission of excessive or unreasonable noise. Specific guidelines relating to the operation of wind machines and birdscarers will be produced.

22.5 Anticipated Environmental Results

Implementation of the policies and methods for management of noise will result in:

- Enhancement of individual and community health, and amenity values; and
- Improved conditions within which the community can provide for its social, economic and cultural wellbeing.

23.0 Subdivision and Development

23.1 Introduction

Subdivision activities are specifically recognised as a category of activity in Section 11 of the Act, distinct from land use activities. The control of subdivision is a specific matter of relevance to district plans as identified in Sections 9 and 31 of the Act. Subdivision is closely related to land use, in that it creates a framework for the establishment of land use activities (in terms of the creation of additional titles) and is clearly linked to subsequent land use expectations of land owners. Because of this linkage, the effects of land subdivision are long term and cumulative.

The subdivision of land is closely related to the influences of natural and other hazards in terms of the suitability of subdivided land for anticipated land uses.

Subdivision is the most common mechanism for the provision of esplanade reserves, esplanade strips and access strips, which are a major factor in terms of conserving natural features and providing public access to and along waterways and the coastline in terms of Section 6 of the Act.

Subdivision is closely associated with the relationship between land uses, and site areas, dimensions and related standards for the size of buildings and the space around them. Finally, it is the process which provides the framework of services provision for land uses, including roading, water supply, sewage disposal, energy, telecommunications, stormwater and trade wastes, in addition to being a mechanism for the provision of land for open space and recreation.

In most cases financial contributions towards the provision of land for open space and recreation or esplanade purposes, or towards the provision of roading and services are taken at the stage of subdivision of the land. However, in some instances land use development and activities are undertaken without associated subdivision of land. The resultant requirements for additional services are the same for developments with or without subdivision and accordingly this section also considers contributions on land use developments and activities which do not involve subdivision. The Act provides that financial contributions may be a contribution in the form of money, land, works or services, or any combination of these made for the purposes specified in the Plan.

23.2 Issue

Recognising the inherent constraints of the natural environment.

There are areas within the Plan boundary which because of risk of natural hazards including flooding, inundation, geo faultlines, fire, erosion, subsidence or slippage, would be unsuitable for development, or require specific measures to be undertaken to overcome, or reduce the risk of these hazards.

23.2.1 Objectives and Policies

Objective 1	**That subdivision proposals be carefully assessed in localities where there are significant natural hazards, unless the effects of these can be adequately avoided, remedied or mitigated, and any such mitigation measures do not have significant adverse effects on the environment.**
Policy 1.1	Control subdivision of land subject to natural hazards such as inundation, erosion, subsidence, slippage and rock fall.
Policy 1.2	Ensure that subdivision does not take place in a manner which could lead to land, waterways or drainage channels being placed at significant risk from sedimentation or scouring of river banks.
Policy 1.3	Ensure that the adverse effects on the environment of measures to mitigate the effects of natural hazards on land subject to land subdivision are avoided, remedied or mitigated

The Council has an obligation under Section 106 of the Act to decline consent to any subdivision in areas where these hazards cannot be adequately mitigated. Where mitigation measures are employed it must be ensured that they are in fact adequate to overcome the hazard. It is also necessary to consider the effects of the mitigation measures themselves which may also create adverse environmental affects. An example of this is the filling of land which may interfere with the functioning of natural flood plains or ponding areas.

Much of the Lower Wairau is particularly vulnerable to potential flood hazard. There are also areas adjacent to the coastline which are anticipated to be subject to sea level rise over the longer term.

The subdivision of land in some areas subject to potential flood hazard may be able to be overcome by the provision of works, or by the provision of standards relating to, for example minimum floor levels. However, the Council will ensure that in assessing subdivision applications in such areas, the intensity of subdivision is not such that it would give rise to relatively high densities of building activity on land subject to flooding or inundation. This is particularly important in the case of subdivision and the potential for dwellings in the rural area. Areas subject to potential sea level rise are likely in some cases to be protected by works, but there are areas where the cost of such protection would be prohibitive in respect to existing investment. Subdivision of land within areas subject to likely sea level rise will be discouraged should they contain proposals for intensive subdivision and associated investment in structures.

There are many areas within the Wairau/Awatere which are particularly prone to erosion, and small areas are subject to slippage and rock fall. Here the concern is with the suitability of such land for subdivision at all, or whether portions of land should be excluded from subdivision to ensure subsequent land use activities involving buildings are not exposed to undue risk to life or property. Subsidence can similarly be a factor, particularly on land filled with unconsolidated material.

It is usually possible to mitigate adverse effects caused by flooding, subsidence, slippage, alluvium (sediment buildup), avulsion (loss of land into a river) or erosion through the undertaking of various engineering measures. These measures may however have significant adverse impacts in themselves.

23.3 Issue

Recognising that subdivision can impact on significant natural features.

The pattern of subdivision can have an impact on the likely management of parcels of land which have significant natural values, particularly subdivisions adjacent to rivers and streams. It is desirable that the pattern of land subdivisions recognise the natural boundaries of features on the ground, and provide the opportunity for these to be set aside and protected. Similarly, opportunity may also be provided through land use development which does not involve subdivision.

23.3.1 Objectives and Policies

Objective 1	**That significant natural features be identified and protected through the process of land subdivision and/or land use development, recognising likely subsequent land use practices.**
Policy 1.1	Protection of significant natural features and ecosystems in the processes of subdivision and/or land use developments, and permanent protection obtained through appropriate legal mechanisms.
Policy 1.2	Provide for access to and along the margins of rivers, lakes and the coastline, where appropriate opportunities exist, during the subdivision and/or development processes.
Policy 1.3	Ensure that works associated with land subdivision processes avoid, remedy or mitigate adverse effects on the natural qualities of the environment, particularly natural ground levels, surface vegetation and water quality.

Land along the margins of streams, lakes or the coastline may have significant natural values and serve as important habitats. There is strong emphasis given to the enhancement of these areas under Section 6 of the Act. Esplanade reserves, and to some extent esplanade strips and access strips, provide a statutory means of achieving such protection, and other similar legal mechanisms can be applied. The Plan provides for land to be taken for esplanade purposes upon subdivision, or as a contribution on development not requiring subdivision consent, on sections of waterways and coastal margins.

It is important to ensure where possible, that the subdivision pattern does not artificially divide and create difficult management circumstances for areas of land containing important natural features, habitats or river and stream environments which often have a natural and irregular pattern. Accordingly, the subdivision of land and/or land use development should be undertaken in a way which specifically identifies, and where necessary excludes, such areas from parcels of land that are intended for more intensive land use. Conditions attached to subdivisions and/or land use development may therefore be imposed in situations where they can achieve the protection of significant natural features as part of these processes.

The Plan recognises the importance of access to and from the coastline, rivers and lakes according to the value of these areas for public access, their ability to provide walkway and other linkages across various parts of the District, both urban and rural, and in reflection of their natural values. The extent of esplanade reserves and strips required is stipulated in the rules contained in Volume Two of the Plan.

There is also the opportunity to provide access strips to provide direct access to rivers, streams or the coastline. The Council will impose any necessary conditions to enhance access provisions where appropriate. In limited circumstances, the need to prevent disturbance of natural values may be such as to make access provisions inappropriate. This may also be the case where the pattern of existing building inhibits subdivision potential and the provision of effective linkages.

23.4 Issue

Relate subdivision control to the consequent sustainable management of natural and physical resources.

The size and shape of allotments created in subdivision is fundamentally linked to the scale, size and type of buildings that can be erected, and the space around those buildings. These matters combine to have a considerable impact on the amenity values of particular parts of the urban area, such as amenity in suburban living environments. The size and shape of allotments created also provide a means to manage and limit potential amenity conflict where urban residential development is located next to rural land (i.e., on the 'urban periphery'). Similarly the pattern of subdivision can have a significant impact on the provision and cost of infrastructure, particularly roading, and other services such as sewerage and water supply. Inappropriate forms of subdivision development can have adverse impacts on the environment, and can also add significantly to the costs of providing services.

23.4.1 Objectives and Policies

Objective 1	**That allotment design size and dimensions created through the subdivision process be determined with regard to the likely activities to be carried out on those allotments, and their effects on amenity values and other resources.**
Policy 1.1	Provide for the creation of allotments which protect the natural environment including remnant indigenous vegetation, riparian lands, coastal margins, wetlands, headlands, heritage features, ridges and archaeological and cultural heritage sites.
Policy 1.2	Ensure that the subdivision of land avoids, remedies or mitigates adverse effects on the natural character of wetlands, lakes, rivers and their margins.
Policy 1.3	Avoid sprawling or sporadic subdivision in the coastal environment, in order to preserve natural character.
Policy 1.4	Enable opportunities to create special purpose allotments that protect the natural environment, in tandem with widening and diversifying land use activities.
Policy 1.5	Ensure that rural character and amenities are protected and enhanced.
Policy 1.6	Recognise the potential for amenity conflict between the rural environment and the activities on the urban periphery.

Policy 1.7	Consider the effects on soil conservation from subdivision of land and avoid, remedy or mitigate any adverse effects.
Policy 1.8	Consider the effects of subdivision on the rural environment in so far as this contributes to the character of the Plan Area, and avoid or mitigate any adverse effects.
Policy 1.9	Recognise the principles of the Treaty of Waitangi in relation to subdivision and development of land.
Policy 1.10	Recognise the potential for innovative subdivision, such as energy efficient subdivision design, which is responsive to landscape character and which avoids, remedies or mitigates adverse effects.
Policy 1.11	To ensure that any adverse effects of subdivision on the functioning of services and other infrastructure and on roading are avoided, remedied or mitigated.
Policy 1.12	Avoidance, remedying or mitigation of adverse effects on the functioning of the arterial road network by requiring where practicable, new allotments to gain legal and physical access from the lower classified roads in the road hierarchy.

The creation of allotments through the subdivision process in the Plan needs to be in accordance with the identified patterns of activities, and the likely environmental effects of such activities. In the case of the urban residential zones for example, the size and dimensions of lots has a significant interrelationship with buildings that can be provided on the site, and the available space around those buildings.

The subdivision of land for residential purposes should create allotments which are of sufficient size and shape to enable dwelling units erected upon them to have sufficient outdoor space and to allow the erection of buildings at a density which is appropriate to the character of the particular areas concerned. It is intended that the density patterns reflect the objectives and policies for living areas, with higher densities (and hence smaller lot sizes), permitted towards the Central Business Area. The policy also reflects an ability to undertake more flexible forms of building development where the development of units is part of a comprehensive plan, rather than isolated creation of additional units imposed on existing subdivision and building patterns.

Conversely, where circumstances provide potential for amenity conflict between residential development at the urban periphery and adjacent rural activities, there is a need to retain lower density development to enable a transition between expected residential and rural amenities.

In rural areas the size and scale of rural allotments relates principally to the provision of services, the likely potential density of dwellings, and the versatility of soils. This reflects policies elsewhere in the Plan which strongly emphasise the interrelationship between rural land use and subdivision.

In rural areas the pattern of subdivision needs to reflect any constraints, including ground water protection, effects on physical infrastructure including the Airport and highway networks, the potential range of alternative land uses with regard to soil versatility, and the provision of services.

Although there is a duty under Section 17 of the Act to avoid, remedy or mitigate any adverse effects, the Council recognises that the principle rural activities inherently involve effects that may not meet the expectations of an urban environment. These

urban activities at the rural/urban interface must expect to compromise their urban amenity expectations where there are justifiable and reasonable effects as a result of primary production activities in the rural environment.

Subdivision of land for commercial or industrial purposes does not, to the same extent, need to rely on strong controls in respect of amenity values. There is provision for smaller allotments or subdivision where comprehensive developments are proposed as higher quality development is possible.

Subdivision for other purposes, including land used for conservation, recreation or cultural facilities should be undertaken in a manner which reflects the natural character or cultural values of these facilities, and the likely public needs associated with them.

For other forms of subdivision, involving land for conservation, recreation or cultural purposes, it is impractical to specify minimum subdivision sizes and dimensions because of the highly variable nature of circumstances associated with subdivision for such purposes. The incidence of subdivision proposals in these circumstances is relatively small, and a key issue is to ensure that the subdivision pattern does not compromise the future management of areas of natural or cultural value and enhances their protection.

Objective 2	**Protection of the environment from the adverse effects of site works associated with subdivision and the promotion of effective and efficient servicing of development.**
Policy 2.1	Avoid, remedy or mitigate the adverse effects of site works associated with subdivision by ensuring each proposed site is suitable for its intended use.
Policy 2.2	Recognise the need to integrate subdivision practice with the environmental requirements for use and development contained throughout this Plan.

Subdivision itself, is a legal process, which does not have direct environmental effects. But the subsequent site development works and effects relating to site servicing requirements can have an adverse impact on the environment. Specific objectives, policies and methods of implementation are provided through the Plan, which relate to site development and servicing effects brought about by the subdivision of land. As such, they need to be addressed at the time of subdivision and in a way which is consistent with effects from development where this occurs without subdivision. Policy 2.2 in particular, recognises this relationship and directs users to other policies and requirements contained throughout the Plan. This also avoids repetition and provides for consistency.

Examples of relevant sections include, Chapter 14 in relation to land disturbance arising from site development work, and, Chapter 15 which contains policies and requirements relating to on-site waste treatment. Chapter 17 contains policies and methods to manage development (including subdivision) in relation to natural hazards. Refer to all chapters.

23.5 Issue

Responsibility for provision of on site services and for the upgrading and maintenance of community infrastructure and amenities to avoid, remedy or mitigate the adverse effects of subdivision/development on the environment.

Subdivision

The subdivision of land is a legal process which defines and records the exact position of title boundaries which may or may not be identified on the ground, but which provides a method whereby owners can obtain guaranteed certificate of title. The purpose of subdivision is to identify and set aside legally and physically, a parcel(s) of land for specific development, generally of a residential, rural, commercial or industrial nature.

Effects of Subdivision/Development

The effects of subdivision/development on the environment are:

- The use of water resources, either surface or ground water for human/stock consumption, irrigation or processing purposes;
- The concentrated discharge of contaminants, either sewage or trade waste;
- The concentrated discharge of stormwater from structures and hard standing areas;
- Discharge to air;
- Access, both vehicular and pedestrian;
- Effects on built environment, i.e. access to sun, daylight, views; and
- Loss of open space and increased demands on community facilities e.g. parks/reserves, library, recreation centre etc.

Initially, the environment may be capable of absorbing these effects to a limited degree however, as a given area is progressively subdivided and developed these effects become unsustainable e.g. contamination of groundwater by discharge, erosion from uncontrolled stormwater discharges, over use of water resources.

In addition, as an area becomes more developed, population pressure creates wider effects such as loss of open space and demands on servicing infrastructure, roading networks, community facilities etc which are not capable of catering for increased levels of use.

Inevitably therefore, any development will require services to mitigate these potential adverse effects, all of which relate specifically to the site of the application. These services may include:

- Effluent disposal (sewage and trade waste);
- Water supply;
- Stormwater disposal from buildings, hardfill and access etc;
- Access; and
- Electrical reticulation.

Subdivision and consequential development and development without subdivision, also creates indirect or downstream effects on the services and facilities located within and owned by the community at large.

These include the need for or upgrading of:

- Trunk services infrastructure, i.e., water, sewerage and stormwater;
- District roading network;
- Provision of open space to avoid, remedy or mitigate the potential adverse effects of increased densities arising from subdivision/development; and
- Community facilities such as libraries, swimming pools etc.

The effects of uncontrolled subdivision and development, particularly in terms of impacts on these services are unsustainable, and would ultimately be to the detriment of the social, economic and cultural well-being of the community and the environment.

It is therefore essential that the direct and indirect adverse effects of subdivision and development be avoided, remedied or mitigated through the provision and implementation of appropriate objectives, policies and rules within the Plan.

There are a number of subdivision/development activities that are not likely to generate any additional demand for community infrastructure, open space of community facilities. These include utility activities, roading projects, emergency service activities or the generation of electricity. The Council has consequently excluded the need for financial contributions from subdivision and development associated with these activities. The Council still has the ability under section 108(2)(c) of the Resource Management Act 1991 (the Act) to impose conditions on resource consents, requiring works and services to avoid, remedy or mitigate the adverse effects on the environment.

Costs of Development

The avoidance, remediation or mitigation of adverse effects arising from subdivision/ development can only be met by the provision of on-site services and, where available, the upgrading of off-site infrastructure. There are costs in the provision of these services.

Section 108 of the Act defines financial contributions as money, land or a combination thereof. The purpose of the contributions is to avoid, remedy or mitigate the adverse effect of subdivision/development. The contributions will be used by the Council to upgrade and extend infrastructure network and community facilities so as to maintain adequate supply and disposal infrastructure as well as levels of access, safety and efficiency.

For subdivision/development, financial contributions will comprise three components.

- A formula and methodology to provide for the upgrading and extending of sewerage, stormwater and water reticulation infrastructures.
- A dollar value based on a per lot or per site basis for residential development which will be applied towards the upgrading and extension of the district roading network.

- A percentage of the land value of new allotments on subdivision or a percentage of the value of development works, as a contribution towards land acquisition and development for reserves and the development and upgrading of community facilities.

It is generally accepted that the provision of onsite services is the responsibility of the subdivider/developer. However there is the question as to whether this responsibility extends to the upgrading of the existing network to provide connection to the servicing infrastructure and the additional capacity within the network to cope with the additional connections created by the subdivision/development.

The Council is of the opinion that the responsibility for developing the services required to avoid, remedy or mitigate effects of subdivision/development lie with the developer. The principle alternative available would be through community subsidy, which effectively represents the community subsidising private development initiatives.

Given the ad hoc and site specific nature of subdivision/development, a flexible formula based approach is most appropriate if the industry is to have the freedom to subdivide and/or develop on a site specific basis. The other alternative is for the Council to direct development into specific areas in staged time frame, dictated by the availability of services.

The cost of development has four components:

1. **The provision of on-site services and reticulation**. These will be met entirely by the subdivider/developer. If the new services are to be taken over by the Council on completion, they will need to be installed to the standards specified in the Council's Code of Practice for Subdivision and Development.

2. **The extension of the services network i.e. sewer/water mains, roading etc, where necessary to connect the subdivision/development into the community infrastructure**. These costs will be met entirely by the subdivider/developer. In the normal course of events the subdivider/developer will pay a financial contribution to the Council to cover the actual cost of the extension works. Alternatively the Council will permit the subdivider/developer to directly carry out the extension works, provided the works meet the standards of the Council's Code of Practice for Subdivision and Development.

3. **The upgrading of the capacity of the community infrastructure**. Upgrading to achieve the necessary additional capacity of mains infrastructure to service that subdivision/development will be carried out by the Council, with the full and actual costs of the upgrading necessary being paid by the developer by way of financial contribution.

   To ensure that the contribution required relates directly to the upgrading necessary to service that particular subdivision/development, The Council has adopted the following formula:

   Cost of upgrading services **(E+D)-C**

   for subdivision/development **(B-A)**

   E = actual or estimated cost of upgrading services to serve the potential total number of allotments.

   D = value of any estimated surplus capacity in existing services over that which is required to serve total number of properties currently in area.

C = estimated cost of upgrading required to existing services to serve total number of properties currently in area.

B = potential total number of lots likely to be in the area to be served by the upgraded service, when the area is fully developed.

A = total number of lots in area which are served by the service.

The Council's Annual Plan sets out priorities for funding of specific land purchases and also provides the current financial information to enable the services contribution formula to be applied. It also makes provision for accommodating holding costs on a case by case basis where the Council is required to act as interim banker in circumstances where a stage of subdivision/development is beyond the physical reaches of the existing network.

4. **Open Space/Community Facilities**. Subdivision/development can give rise to a reduction in open space and, ultimately, as population increases, there is a greater demand for open space, recreational and community facilities.

The Council administers a "Reserves and Recreation Policy". The Annual Plan process, sets out objectives and policies to mitigate the adverse effects of subdivision/development by acquiring land and maintaining and developing existing reserves and facilities.

Fundamental to these objectives is the acquisition and development of community facilities and reserves from reserve fund contributions and development levies.

For the purposes of this Plan, development levies and reserve fund contributions referred to should be viewed as "cultural and amenity contributions".

23.5.1 Objectives and Policies

Objective 1	**Ensure that the direct on-site adverse effects of subdivision/ development are avoided, remedied or mitigated through the necessary supporting framework of services and amenities.**
Policy 1.1	Ensure that standards for urban residential subdivision and development are consistent with the availability and receiving/supply capacity of existing and affordable urban servicing infrastructure, and take account of the finite limitations of the available infrastructure.
Policy 1.2	Require that subdividers and/or developers provide all on-site services to avoid, remedy or mitigate any adverse effects arising from the subdivision/development of the land resource.
Policy 1.3	Integrate new subdivision/development roads into the existing network to adequately cater for expected increase of traffic generation and the safe access and movement of vehicles, pedestrians and cyclists.
Policy 1.4	Provide new pedestrian linkages and cycle routes, particularly in larger residential subdivisions, and where practical the extension of existing routes.

Policy 1.5	Require integrated establishment of underground utility services during subdivision/development.
Policy 1.6	Require that water supplies for the demand anticipated following subdivision/development are of sufficient capacity and of a potable standard for human consumption.
Policy 1.7	Encourage connections to public or community reticulated water supply systems wherever such systems are available.
Policy 1.8	Encourage the retention of natural open waterway systems for stormwater disposal as an alternative to piping.
Policy 1.9	Require stormwater disposal in a manner which maintains or enhances the quality of surface and ground waters.
Policy 1.10	Require stormwater disposal in a manner which avoids inundation of land, both within and beyond the boundaries of the site.
Policy 1.11	Require that provision is made for trade waste disposal for industrial uses, either at the time of subdivision of the land, or at the time of development.
Policy 1.12	Require that electrical reticulation is appropriate to the amenities of the area.
Policy 1.13	Require that sewage is disposed of in a manner which is consistent with maintaining public health.
Policy 1.14	That wherever possible, sewer systems be designed so that effluent will flow by gravity.
Policy 1.15	Encourage connections to reticulated sewerage systems, where such systems are available.
Policy 1.16	Where a reticulated system is not available, provision shall be made for the satisfactory disposal of sewage wastes, subject to any adverse effects being avoided, remedied or mitigated.
Policy 1.17	Where indicative layouts for roads have been provided, ensure that the roading proposed at the time of subdivision and development is: a) Compatible with the Council's roading hierarchy or alternative design standards approved by Council; b) Reflects the density of development; and c) Connects to the existing roading network and contains internal connections to the extent that is practicable. d) Does not result in a subdivision layout that would cause poor amenity outcomes for individual properties, particularly in terms of property orientation (for solar access or relative to any road or other residential property) and shape.
Policy 1.18	Where indicative locations for open space have been provided, ensure that the open space proposed at the time of subdivision and development:

	a) Reflects the density of development; b) Is of sufficient area to provide for the amenity needs of those living and/or utilising the development; c) Is accessible (with the degree of accessibility increasing with increasing density of development). d) Does not result in a subdivision layout that would cause poor amenity outcomes for individual properties, particularly in terms of property orientation (for solar access or relative to any road or other residential property) and shape.
Policy 1.19	Subdivision and development associated with utility activities, roading projects and the generation of electricity, are generally exempt from the requirements for financial contributions as these activities are not likely to generate any additional demand for services or for open space or recreation.
Objective 2	**Ensure that the off-site or downstream adverse effects of subdivision or development are avoided, remedied or mitigated.**
Policy 2.1	Require that subdividers/developers make provision for the upgrading of off-site servicing networks to avoid, remedy or mitigate any adverse effects of the subdivision/development e.g. roading and access; water supply; sanitary sewage disposal; stormwater disposal; trade waste disposal and electricity supply.
Policy 2.2	Ensure that the adverse effects of subdivision/development on open space and community facilities are mitigated by requiring contributions towards the provision of additional open space and community facilities.
Policy 2.3	The Council will waive or reduce contributions in relation to any particular proposals where the subdivider/developer suggests alternatives to avoid, remedy or mitigate the adverse effects of that proposal.
Policy 2.4	Subdivision and development associated with utility activities, roading projects and the generation of electricity, are generally exempt from the requirements for financial contributions as these activities are not likely to generate any additional demand for services or for open space or recreation.

23.5.2 Scope of Services

Water

The subdivision of land is often followed by intensification or changes in land use, that subsequently increase the intensity of water usage. Where a proposed subdivision creates new allotments then there will be an increase in demand for potable water. That supply must be sufficient, potable and reliable. Development not requiring subdivision may also generate a similar demand.

Water is potentially available from four sources:

- Artesian wells;
- Surface supplies, such as rivers or streams;
- Rain water; and
- Reticulated supply.

Stormwater

Stormwater must be disposed of in a manner that does not cause any adverse effects to either the subject land or any other property. Section 106 of the Act requires subdivision consent not to be granted in certain circumstances, which includes inundation factors and the associated discharge of stormwater from one property to another. Interference with existing flow paths could give rise to adverse effects to other properties, such as surface flooding. The design of stormwater systems and the capacity of existing systems must be adequate to achieve satisfactory disposal.

Roading

Roading standards, should reflect the anticipated levels of through traffic, local traffic, and seek to provide a safe and convenient relationship between vehicle, cycle and pedestrian movement. Similarly, access points to properties must be safe and effective to meet the needs of residents and not compromise the safety of passing traffic.

Sewage

Disposal and proper treatment of sanitary sewage is a matter of importance, which if not undertaken in a satisfactory manner can create a danger to health and have significant environmental effects, for example, contamination of ground and surface water systems.

Where a connection to the reticulated system is available, danger to health and well-being can be avoided. In rural areas where connection is impracticable, care must be exercised to ensure that effluent disposal systems do not cause pollution of any adjoining waterways or the underground aquifers.

Trade Waste

Subdivision for new industrial areas has to anticipate trade waste disposal needs which are generally much higher than for most other land use activities.

Some industries involve processes, which generate large volumes of waste products that must be discharged to an approved outfall. Frequently, at the time of subdivision/development, it is not known what intensity of trade wastes will be generated, and even when they are known, land uses may change in the future. Where connection to the Council sewerage system is available, provision for trade waste disposal shall be made by way of new extensions to the system and connections to individual allotments at the time of subdivision/development of the land. This may necessitate individual trade waste agreements if certain industries are to access the community infrastructure. In some situations, there may need to be an emphasis placed on on-site treatment.

Energy

The supply of electric power to all sectors of the community can readily be regarded as an essential service. It includes any upgrading or establishment of a system to supply individual users of sites. The provision of reticulated power supplies will of necessity involve reticulation systems that can be either above or below ground, as well as (in some cases) substations. Urban subdivision will normally require street lighting. The provision of gas supplies is not regarded as an essential service, but subdividers or developers can choose to make provision if desired.

23.5.3 Mitigation measures

Financial Contributions

Subdivision/development of land requires a framework of services for subsequent purchasers/occupiers of new allotments, who have an expectation that services will be available and which are paid for within the purchase price.

New subdivision/development may also give rise to demands for the upgrading of existing services beyond the site as a direct consequence of the subdivision/development and anticipated land uses associated with it. These demands may impose adverse effects on services, roading and amenities.

The Act provides that the Council may require a 'financial' contribution of money or land (or combination thereof) to avoid, remedy or mitigate such effects, as a condition of resource consent.

Reserve fund contributions are subject to formulae specified in the Plan.

Where a subdivision/development creates a demand for upgrading services outside the proposal site, The Council is justified in recovering the actual costs attributable to the subdivision/development itself. Contributions are calculated using a formula that ensures costs of are not borne by ratepayers generally, but are not set at a level where they act as an unfair tax on subdivision/development.

Some land use developments are undertaken independently of subdivision, such as the amalgamation of existing titles for development of rental accommodation, or increasing household unit numbers on existing titles. Thus financial contributions must anticipate the potential adverse effects that demands such as development can place on services. Therefore, within the Plan the financial contribution provisions for subdivisions have also been applied to "developments" (as defined in Volume Two) that do not involve subdivision.

In accordance with the Act, contributions are set to specified rules, amounts or methods in order to ensure "transparency" of charges and legal certainty. Generally the level of contribution will be based upon specified formulae which will be applied according to the proposal in question. Where dollar amounts are specified, these are maxima (at a base date of November 1998). They are GST exclusive and adjusted over time against the Opus Construction Cost Index (CCI).

23.6 Issue

A shortage of sustainably managed, greenfield, residentially zoned land in Blenheim can inhibit growth and reduce the choice of housing.

Blenheim is Marlborough's centre and the social and economic needs of the people of Marlborough require that in Blenheim there must always be sufficient land available for new housing. Planning for new housing needs to be long term and the growth areas chosen must be suitable for their purpose and must be able to be serviced within the economic capacity of the ongoing community. At the same time development in those areas should have regard to potential adverse effects including reverse sensitivity, geotechnical, and environmental matters and provide for rational and integrated roading and open space layouts.

23.6.1 Objectives and Policies

Objective 1	**To enable high quality residential development in greenfield areas (Areas 1-5) in a sustainable manner in order to provide for the future growth of Blenheim.**

General Policies Applicable to Areas 1-5

Policy 1.1	Farming activities are permitted to continue until residential development of the land occurs.
Policy 1.2	Subdivision yield should aim at a yield of between 10 and 12 dwellings per hectare. A greater yield will be encouraged where it is demonstrably shown that this produces appropriate urban design outcomes. Allotment sizes greater than 800m^2 are discouraged other than at the boundary between the greenfields area and any non-residential zone and only to the extent reasonably necessary to manage reverse sensitivity effects having regard to the range of methods available to manage those effects.
Policy 1.3	Subdivision design shall have regard to reverse sensitivity effects in respect of existing lawfully established rural and non-residential activities.
Policy 1.4	Subsoil conditions of sites shall be investigated to establish if appropriate foundation designs of buildings are required to mitigate the effects of liquefaction or lateral spread.
Policy 1.5	Where indicative roading layouts are shown on the planning maps the roading network proposed at the time of subdivision and development shall be in general accordance with the layout.
Policy 1.6	Following consultation with Council, reserve areas, open spaces and community facilities shall be identified on subdivision plans.
Policy 1.7	Prior to development proceeding reticulated services owned by, or to be vested in, the Council shall be available for connection and utilised and/or financial provision made for them.

Policy 1.8	Those areas that are able to be serviced by a sequential and orderly extension of existing infrastructure services shall be given priority by Council.
Policy 1.9	Contaminated sites shall be identified and contamination mitigated or remediated so the land is suitable for residential development.

Specific Policies Applicable to Area 2

Policy 1.10	Activities in proximity to the Transpower Blenheim Substation shall not compromise the operation and function of the substation.

Specific Policies Applicable to Area 3

Policy 1.11	The indicative roading layout in this area will be dependent on and enhanced by connections to existing roads over land that is outside of the area i.e. connections to Westwood Avenue for Area 3.

Specific Policies Applicable to Areas 3 and 5

Policy 1.12	Subdivision design shall have particular regard to the Westwood Retail Centre as it relates to reverse sensitivity effects relating to noise, truck movements and light spill.

Specific Policies Applicable to Areas 1, 2, 4 and 5

Policy 1.13	Subdivision design shall have particular regard to farming activities on the northern boundary of the areas and the western boundary of Areas 4 & 5 as it relates to spray drift, noise and traffic movements.

Following extensive growth strategy investigations Council has identified five growth areas generally to the north and west of Blenheim in an Urban Residential 2 Greenfield Zone. The growth areas are identified and numbered in the Zone as 1-5. The areas should provide sufficient housing for the next 20 years or so. There are a number of more general policies applying to all of the areas and a number of more specific policies applying to the different areas.

In general existing farming activities are able to continue in the zone until they are developed for residential use. An efficient pattern of subdivision for medium density housing is encouraged in the zone although in order to mitigate the effects of reverse sensitivity at the rural/urban interface larger lots of 4,000 m^2 are allowed for in certain circumstances. Subdivision for residential purposes should have regard to such matters as reverse sensitivity, sub soil conditions, an efficient roading layout (which is indicatively shown in Areas 1-5 on the planning maps) and the location and provision of open space and other community facilities. Rezoning does not imply the presence of Council infrastructure. Preference will be given to an orderly and sequential provision of services in order for Council spending to be undertaken in a prudent manner.

There are a number of specific issues in some areas relating to reverse sensitivity effects and roading connections. Specific recognition of the Blenheim Substation in Area 2 is made in order to give effect to the National Policy Statement on Electricity Transmission (NPSET).

23.7 Methods of Implementation

Rules	Rules will be used to establish minimum allotment areas and dimensions and minimum site areas and dimensions. Subdivision will be used as a land management method. Rules will provide for the preservation of natural character, vegetation and landscape values. Rules will set performance standards to be met in respect of the provision of services, roading and amenities. Rules will reflect the availability, receiving/supply capacity and affordability of urban servicing infrastructure and will take account of the finite capability of the existing facilities.
Plan Provisions	Planning maps will indicate zoning patterns. Plan rules outline standards for esplanade strips and access strips; and for the preservation of vegetation, landscape and land set aside for conservation purposes.
Financial Contributions and Development Contributions	The Council will require financial and development contributions to avoid, remedy or mitigate any adverse off-site and downstream effects of subdivision/development in accordance with the Plan rules.
Code of Practice	The Council has developed a Code of Practice for subdivision and land development. This Code of Practice sets out specific methods by which the subdivision requirements of this Plan can be met.
Subdivision Standards	Provision will be made for subdivision and development to be designed in accordance with recognised Subdivisions Standards (such as NZS4404:2010) where meeting such standards meets or exceeds the anticipated environmental results.
Reserves Strategy	The Council, as part of its integrated management practice has prepared a Reserves Strategy. The contribution levels have been designed to integrate with this strategy.
Annual Plan and Long Term Plan	The Council's Annual Plan and Long Term Plan sets out priorities for funding of specific land purchases and also provides the current financial information to enable the services contribution formula to be applied.
Education	The Council will provide guidelines, information and advice relating to subdivision and design.
Identification of the values of water bodies	The natural and human use values supported by surface water bodies within the Plan area are identified in Appendix A of Volume One of the Plan. These values include ecological, habitat, recreational and natural character values. Regard can be had to these values when considering resource consent applications required as a result of rules in this Plan. As more is learnt about the values supported by water bodies in South Marlborough, it is possible to add to Appendix A by way of plan change.

Indicative Services Plan	For Areas 1-5 of the Urban Residential 2 Zone initial concept designs for infrastructure will be developed by Council into indicative Services Plans (involving detailed survey and engineering design and will include road network and widths, routes for reticulation, reticulation capacity requirements and land and easements to be acquired) prepared in consultation with landowners and adjoining property owners.

Experience has proven that subdivision is best controlled through the development of rules. Rules provide greater certainty with respect to what is and is not acceptable with respect to the achievement of the objectives and policies.

Plan provisions are an appropriate method for setting acquisition procedures and priorities. Other methods can be used to support this process.

23.8 Anticipated Environmental Results

Implementation of the policies and methods relating to subdivision is expected to result in;

- Avoidance of subdivision and development in areas of high risk of natural hazards;
- Avoidance of potential risk from flooding, inundation, erosion, rock fall, subsidence or potential sea level rise;
- Mitigation of natural hazards where such measures are adequate and in themselves are environmentally acceptable;
- Provision of esplanade reserves, strips and/or access strips in appropriate locations where enhancement of habitats and/or public access can be achieved.
- Minimised adverse impacts on natural ground levels, surface vegetation and water quality;
- Patterns of subdivision complementary and appropriate to the character of the land uses within and anticipated for the area concerned;
- Patterns of subdivision consistent with planned density, building design and open space requirements appropriate in particular environments;
- Maintenance of the capacity and efficiency of roading and other services;
- Safe and convenient access to and from allotments;
- Enhanced and extended patterns of vehicular, cycle and pedestrian linkages;
- Water supplies which are sufficient in volume to meet reasonable needs and which are of potable quality;
- Adequate disposal of stormwater, maintaining water quality and assisting in minimising inundation of land;
- Retention and enhancement of natural drainage systems;
- Disposal of sewage in a manner which maintains public health and the quality of surface and ground waters;
- Environmentally safe disposal of trade wastes;

- Adequate provision for energy supplies and telecommunications;
- Maintenance of the quality of the environment, particularly natural ground features;
- Maintenance of the capacity and efficiency of existing services;
- Cost effective provision of services for redevelopment and growth, without additional financial burdens on rate payers;
- Continued provision of open space and enhanced protection of natural and heritage features;
- The sustainable management of the life supporting capacity of the soils in rural areas; and
- Retention of enduring rural activity production options on the Wairau Plain.

24.0 Mineral Extraction

24.1 Introduction

Apart from gravel, sand, rock, limestone and salt extraction in relatively small quantities mineral extraction is not a strong economic feature of the Wairau/Awatere planning area. Gravel extraction from rivers assumes some importance in the lower Wairau Plain in particular, where it is an integral component of floodplain and river management.

In promoting the principle of sustainable management, the Council has a responsibility to ensure that any adverse effects from the extractive industry are avoided, remedied or mitigated.

24.2 Issue

Mineral extraction, including prospecting and exploration can have adverse effects on the environment.

While producing economic returns and providing employment in the District, mining can result in adverse impacts on the natural, physical and social environment of an area, including landscape changes, loss of natural ecosystems and conflicts with other land and water users, particularly recreational activities. Poorly situated or managed extraction activities can cause a loss of visual amenity, or nature conservation values; or a loss of rural amenity through noise, dust, blasting, or heavy traffic during extraction operations. Gravel pits can also penetrate or interfere with the shallow water bearing gravels used for irrigation or domestic use. Poorly managed rehabilitation and stormwater control can result in large quantities of sediment entering the District's waterbodies, with significant loss of water quality and in-stream values. Extraction in steep hillslope and mountainous areas can affect stability of hillslopes and terraces. These impacts are dependent on the sensitivity of the area, the scale of the operation, and how well the operation is managed.

24.3 Objectives and Policies

Objective 1	**To avoid, remedy or mitigate adverse effects on the environment from mineral extraction, including prospecting and exploration.**
Policy 1.1	Recognise the potential adverse effects of commercial extractive activities, including mineral exploration, on the rural environment, other recreational resources and users, and on the road network, and to require consent for such operations, in order that an assessment may be made as to the sensitivity of an area and the degree to which an operation will avoid, remedy or mitigate any adverse effects to the amenity and environment of a rural area, including the surface and beds of waterbodies.
Policy 1.2	Ensure that during and after mining, sites are progressively rehabilitated in a planned and co-ordinated manner, to enable the establishment of a land use appropriate to the area.

Policy 1.3 Recognise prospecting and small-scale exploration as activities with limited environmental impact for any area not having particular ecological significance.

The Council believes that provided appropriate measures are undertaken during the process of establishing extractive industries, these can be successfully accommodated within the Plan area.

24.4 Issue

The effectiveness of river channels and their ecology is affected by the build up (aggradation) of gravel and sediment by natural processes; or also affected by excessive depletion, often by commercial extraction, of this valuable resource. The control of gravel and sediment extraction from a river has environmental, river control and commercial consequences.

Rivers are dynamic natural processes carrying sediments eroded from their catchments out to the sea.

Sometimes the sediment transport carrying capacity of the river is greater than the supply rate, which then can lead to erosion of its riverbanks and riverbed and possibly changes to ground water recharge. This effect can be accentuated by excessive gravel extraction from the river.

Where a river reach is in balance with no net deposition it is said to be in regime.

The natural geology of the catchment, tectonic activity, whether the sea is readily removing sediments from the river mouth, and changes in flow regime are the major factors affecting whether a river is aggrading, eroding or in regime. Catchment vegetation is another, usually secondary, factor.

For the main Wairau floodplain the coastline is prograding and this is a major factor in gravel building up in the Wairau River channel downstream of Jeffries Road. The aggradation of gravel in this reach is also probably affected by the change in flow regime with the blocking off of the Opawa channel at Conders Bend in 1914.

Sediment deposition is occurring for the Lower Wairau since the change in flow regime with the Wairau Diversion construction in 1964 and its continual enlargement.

Conversely the Awatere River is entrenched below a historical floodplain for most of its length by a combination of the sea removing its transported sediment and geological factors.

The upper reaches of the Wairau River and its tributaries are more dynamic with waves of gravel and sediment moving through due to storm activity. These upper catchment river reaches appear to have a cyclic aggradation/erosion pattern with no clear indications of channel aggradation. The same can be said for the Clarence and Waima (Ure) River systems.

Gravel and sand is a valuable commercial commodity. In the Wairau/Awatere area the amount of gravel and sand required by industry can at present be adequately supplied from the riverbeds.

The manner in which gravel and sediment is extracted can also be seriously detrimental to environmental and ecological factors associated with the riverbed.

Control of where and when gravel extraction takes place from riverbeds is therefore a significant issue.

24.5 Objectives and Policies

Objective 1	**To manage gravel and sand extraction to improve the efficient and effective performance of river channels and floodway systems, especially the stopbanked floodways of the main Wairau floodplain.**
Policy 1.1	To encourage gravel extraction from the Wairau River floodway system downstream of Jeffries Road and in the vicinity of Tuamarina Bridge in particular.
Policy 1.2	To discourage gravel extraction from reaches of the rivers where it is detrimental to bank stability and flooding or would contribute to other environmental detriment.
Policy 1.3	To allow for commercial gravel extraction from other river reaches.

Objective 2	**To ensure gravel and sediment extraction is carried out in a manner that avoids, remedies or mitigates environmental effects.**
Policy 2.1	In assessing the effects of gravel extraction from any particular location to give regard to the effects on water quality, natural character of the riverbed, indigenous vegetation and fauna, public access, Maori values, amenity values, ecological factors, habitat of trout and salmon, bank stability and groundwater recharge.

On the main Wairau floodplain the Wairau River is aggrading downstream of Jeffries Road to such an extent as to be reducing its stopbanked floodway capacity to less than the required design size. This includes the Lower Wairau and parts of the Wairau Diversion. A practical option to address the problem is to encourage gravel extraction from this reach.

Most other stopbanked river floodways on the main Wairau floodplain are not aggrading and gravel extraction should be discouraged. This includes the Wairau River from Jeffries Road up to the Waihopai confluence, from the Waihopai up to SH 63, from the Omaka up to Hawkesbury Road Bridge, and the Taylor below Taylor dam.

It is preferable to supply the commercial demand for gravel in the Wairau floodplain area from the Wairau downstream of Jeffries Road to benefit the Wairau River and floodway system than to increase potential river channel degradation by permitting continuing extraction from the Omaka, Taylor and Wairau above Jeffries Road.

Gravel extraction has the potential to seriously disrupt the riverbed environment and many of the aspects listed in the Resource Management Act as requiring specific attention. This varies on a river by river and a site by site basis. Attention must be given to ensure that environmental factors of the river bed are not adversely affected.

24.6 Methods of Implementation

Council Activities	The Council will deliberately extract gravel and sediment from identified sites at suitable river flows and stockpile outside the river channel for later resale or disposal in accordance with the Marlborough Rivers Code of Practice. Financial incentives will be used by the Council to encourage gravel extraction from particular areas. Access to the various gravel extraction sites will be controlled in areas of concern to reduce nuisance to the public.
Rules	Rules are included to control extractive operations, mineral exploration and larger-scale recreational mining. Assessment criteria are provided to protect the environment and amenity of rural areas. Rules will also be used to control the manner in which gravel extraction is carried out so as to minimise any detrimental impact on the environment. Rules will be made to prohibit gravel pits on normal rural land outside the river channels. Rules will be made to limit the amount and in some circumstances prohibit gravel extraction from various river reaches.
Education	Regular meetings will be held with gravel extractors.
Information	An information base will be developed as to the availability of gravel in various river reaches available for extraction and the quality of this gravel.
Guidelines	Provide information on appropriate land use practices and encourage use of voluntary guidelines and best practices.

The Council considers that controls are necessary with respect to the extractive activities, including larger-scale recreational mining, because the scale of the operations, the sensitivity of the area, and because the management of the operations may vary considerably. Consequently the effects on amenity values such as privacy, rural outlook, spaciousness and quietness or the effects on remoteness, recreational or conservation values may vary considerably. For these issues to be adequately addressed the Council considers individual proposals need to be assessed on their merits. This will also enable the Council to set conditions on the management of the operation that are appropriate to the scale of the operation and sensitivity of the area.

Rules are the most effective way of ensuring that gravel extraction is carried out in a manner that meets other objectives of this Plan regarding environmental and ecological factors.

The co-operation of gravel extractors is required. Education techniques will enable gravel extractors to understand the broader consequences of their operations.

An information base is required on which the Council can base its decisions on how much gravel or other sediment can be extracted at which site and what the potential concerns at that site are.

24.7 Anticipated Environmental Results

- Utilisation of mineral resources within the District, providing that the scale of each operation and its effects, both short and long-term, are appropriate to the environment;
- Water quality maintained and enhanced;
- Maintenance of landscape values including spaciousness, notable landforms, extensive indigenous vegetation cover, and views and panoramas;
- Protection of the areas which have significant natural conservation value;
- Retention of the indigenous bio-diversity of the District and its remaining indigenous ecosystem functioning;
- Protection of habitat for birdlife and fish which occur on beds of rivers; and
- Improvement of the flood waterway capacity of flood prone river systems.

Appendix A

Values Associated with Fresh Water Resources

The water resources within the plan area have both tangible and intangible values associated with them in terms of in-stream requirements, ecological, cultural and recreational uses. The following table summarises these resources and the values associated with them, identifies the water quality classification of each water body and major threats to those water bodies, and indicates the desired outcome for each water body of either maintaining or enhancing values.

The resources have been value ranked based on their instream attributes and values (on the basis of information gathered from a wide range of water users) and the vulnerability of the resource to adverse environmental effects.

Water quality classifications are identified to clearly indicate environmental bottom lines to ensure maintenance of surface water flows which safeguard the life supporting capacity of the resource, the integrity of habitats, and recreational and amenity values.

The classification system is important because it provides the basis for using different levels of control via the rules to enable protection of the water resources. Resources of very high value will have very stringent controls placed on them to ensure that use does not compromise the very high value of the resource. Water resources of lower value will not have additional controls placed on them regarding use.

Definitions

Column 5 - Water Quality Classifications

F - managed for fishing purposes (primary objective being safe consumption of fish).

FS - managed for fish spawning.

NS - managed in its natural state (catchments within Conservation Estate).

AE - managed for aquatic ecosystem purposes.

CR - managed for contact recreation purposes.

A - managed for aesthetic purposes.

DW - managed at drinking water quality.

WS - managed for water supply purposes.

SG - managed for shellfish gathering.

Column 6 - Desired Outcome

M - (Maintain) means that the existing water quality is believed to match the classification and that therefore the present water quality only needs to be maintained.

E - (Enhance) means that the existing water quality is believed to be lower than the classification and that therefore the present water quality needs to be enhanced.

Class - The purpose of this column is to indicate the relative value of the location within the Marlborough District.

Notes

1 "Threatened fish" refers to species listed in the Department of Conservation publication "Setting priorities for the Conservation of New Zealand's Threatened Plants and Animals".

2 "Regionally significant" refers to fish species that may be common elsewhere, but are not well represented in the Wairau/Awatere area.

3 Monitoring will be carried out to establish whether a higher standard is required to meet the shellfish gathering classification in the Coastal Marine Area.

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
1	Source downstream to Wash Bridge	High	River corridor for birds and fish. Trout spawning habitat. Recreational area - boating, rafting, canoeing, swimming, hunting, picnicking and passive. Fishing - trout, salmon and eel - headwater trout fisheries down to Rainbow River confluence. Fish passage and habitat. Bird habitat and passage - species include: black fronted tern, banded dotterel, pied stilts and oyster catchers. Braided river habitat with undisturbed shingle islands. Native biodiversity - galaxidae and fernbirds.	Out of stream use during low flows. Reduction in water quality from adjacent landuse. Flow modification.	F, FS, AE	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
2	Wash Bridge downstream to State Highway 1	High	Braided river habitat. River corridor for fish and birds. Fish passage and habitat - salmon spawning . Lagoons and backwaters. Important trout spawning areas in side streams. Bird habitat - scarce species include: black fronted tern, banded dotterel, black shag, black backed gulls, black billed gulls, pied stilts and oyster catchers. Fishing - trout, salmon and eel. Native biodiversity - 5 species. Recreational area - boating, rafting, canoeing, hunting, swimming, picnicking, passive and jetboating.	Out of stream use during low flows. Flow modification. Reduction in water quality from adjacent landuse. River control works affecting instream flow depth, width and velocity. River control tree planting and rock work, bank protection.	F, CR, FS	M
3	Lower Wairau River from State Highway 1 downstream to sea	High	Tidal estuarine habitat. Lagoons and backwaters providing habitat. Recreational area - boating, rowing, water skiing, nature watch, hunting, picnicking and passive. Fishing - trout, salmon, whitebait, eel, flounder, kahawai. Bird habitat. Native biodiversity. Whitebait spawning.	Reduction in water quality from adjacent landuse. Salinity changes with Wairau Bar changes. Sedimentation. Reduction in flow due to uncontrolled flow split into Diversion. Discharges.	F, FS, CR	E
4	Grovetown Lagoon and Bothams Bend Wetland	High	Bird habitat - waterfowl including mallard, grey duck, grey teal, shoveller, pukeko, black swan, shag, kotuku, white faced heron and cattle egret, spotless crake. Fish habitat - whitebait. Recreation - nature watch, passive. Natural Wetland. Native biodiversity - giant kokopu.	Reduction in water quality from adjacent landuse. Sedimentation. Stock damage to riparian margin. Instream barriers to fish passage. Water levels and flows partially controlled by gates and pumps. Infilling by willows.	F	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Out-come
	Wairau Catchment					
5	Rainbow River downstream to Rainbow/ Wairau River Confluence	High	Trout and salmon spawning. Recreational area - tramping and hunting. Outstanding natural landscape. Fishing - trout. Native biodiversity - 6 fish species.	Out of stream use during low flows. Flow modification.	F, FS, AE	M
6	Alpine Zone of Wairau Tributaries	High	Outstanding natural landscape. Recreational area - tramping and hunting.	Flow modification.	F, FS, AE	M
7	Upper Wairau River Tributaries excluding Upper Six Mile Creek basin and Rainbow Skifield	High	Trout spawning, non-migratory galaxiids. Outstanding natural landscape. Recreational area - tramping, hunting, skiing.	Out of stream use during low flows. Flow modification.	F, NS, FS	M
8	Ski-field Zone	High	Rainbow Ski-field development.	Flow modification. Discharges.	NS	M
9	Branch River, Leatham River, Argyle Lake and Enchanted Stream	High	Fishing - trout. Fish habitat - trout spawning. Recreational area - tramping, mountain biking, canoeing and hunting. Native biodiversity - threatened koaro, 6 species. Outstanding natural landscape.	Instream barriers to fish passage. Low flows due to out of stream use. Flow modification.	F, AE, FS, CR	M
10	Waihopai River	Medium	Trout spawning habitat. Recreational area - rafting, canoeing, swimming and passive. Limited fishing - trout. Native biodiversity - 6 species. Braided river habitat.	Instream barriers to fish passage. Low flows due to out of stream use.	F, CR, FS	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
11	Gibsons Creek and Upper Opawa River above Hammerichs Road	Low	Recreational area - picnicking, passive. Aesthetic landscape. Bird habitat - waterfowl. Limited fish habitat - trout, eel.	Low flows inhibiting fish habitat and passage. Stock pollution and damage to riparian margin. Sedimentation. Reduction in water quality from adjacent landuse.	F, A	M
12	Cravens Creek	Low	Fishing - eel. Food gathering - cress.	Groundwater level change. Reduction in water quality from adjacent land use. River control works that disturbs the channel bed will change the seepage pattern. Instream dams changing sedimentation and seepage pattern and barriers to fish passage.	F, CR, FS	M
13	Spring Creek	High	Outstanding natural landscape - unique spring fed waterway with consistent flow. Fishing - clear water regardless of weather, trout, koura, black flounder, eel. Recreational area - canoeing, picnicking. Fish passage and habitat - native fish, lamprey, giant kokopu. Bird habitat - waterfowl, kingfisher, fantails. Food gathering - cress. Native biodiversity - 5 species. Aesthetic landscape.	Groundwater level change. Reduction in water quality from adjacent landuse. Stock pollution and damage to riparian margin. Instream barriers to fish passage from Wairau River. Infilling by 'crack' willows. Duck population Eel population.	F, A, AE	E

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
14	Ribbon lagoons/ coastal beach swamps and drains	High	Unique natural wetland habitat. Bird habitat - waterfowl and upland game. Fishing - eel, inanga. Recreation area - nature watch. Biodiversity in landscape. Flora – Nationally vulnerable specie.	Vulnerable to drainage or development. Instream barriers to fish passage. Stock pollution and damage to riparian margin. Reduction in water quality from adjacent landuse.	F	M
15	Wairau Diversion	Medium	Fishing - whitebaiting, kahawai, trout. Recreational area - picnicking, passive. Fish passage and habitat. Bird passage and habitat.	Bar blocking. Instream barriers to fish passage from Diversion. Salinity changes. Inconsistent low flows due to uncontrolled division with Lower Wairau.	F, FS	M
16	Wairau Lagoons	High	Significant for iwi. Nationally significant wetland habitat. Bird habitat - terns, shags, waterfowl, banded dotterel, migrant waders, royal spoonbill. Recreational area - nature watch, passive and hunting. Fishing - eel. Natural biodiversity - 90 species of marine, freshwater fish and birds.	Reduction in water quality from adjacent landuse. Infilling by willows, aquatic weeds and sediment. Partial bar blocking leading to changes in salinity and changes to tidal flushing levels and flows. Stock pollution and damage to riparian margin.	F, SG	E
17	Copp's Wetland	High	Wetland habitat (recognised by QE II Trust covenant)	Reduction in water quality from adjacent landuse.	F	M
18	Roses Overflow	High	Fish habitat - whitebait spawning. Fishing - whitebait, trout. Recreational area - hunting, passive. Bird habitat - crake. Native biodiversity - 9 species.	Reduction in water quality from adjacent landuse. Stock pollution and damage to riparian vegetation. Instream barriers to fish passage.	F, FS	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
19	Lower Opawa River- from Taylor River/Opawa River confluence to Opawa River/ Wairau River confluence	Medium	Trout and whitebait spawning. Migratory bird habitat. Recreational area - boating, canoeing, nature watch, picnicking and passive. Fishing - eel, trout, whitebait, black flounder. Urban recreational landscape. Fish habitat.	Reduction in water quality from adjacent urban landuse. Stock pollution and damage to riparian margin. Instream barriers to fish passage at Wairau River confluence. Groundwater level change. Sewage discharge High Lower Wairau River levels. Stormwater discharges.	F, FS	E
20	Opawa Loop	Medium	Urban recreation. Landscape.	Weed. Low dissolved oxygen levels. Low flows with very low velocities.	F, CR, FS	E
21	Lower Taylor River from Taylor Dam to Opawa River confluence including Doctors Creek and Taylor Dam	Medium	Fishing - trout, eel, black flounder. Recreational area - boating, rafting, canoeing, swimming, picnicking, nature watch, passive. Fish habitat - trout spawning, eel, black flounder, koura. Urban recreational and aesthetic landscape. Taylor Dam bird habitat - black swans, mallard, Australasian coot, NZ scaup. Bird habitat - waterfowl, grey teal, little black shag, pukeko, coot and shoveller duck.	Development of riparian margin. Reduction in water quality from adjacent urban landuse and landfill. Low flows due to out of stream use. Groundwater level change. Stormwater discharges.	F, AE, CR	E
22	Taylor River upstream of Taylor Dam, Fairhall River, Omaka River and Mill Stream	Low to Medium	Fishing limited by ephemeral flow conditions - eel, trout. Recreational area - picnicking, nature watch and passive. Bird habitat - waterfowl and upland game. Braided river habitat. Trout spawning habitat.	Low flows due to out of stream use. Stock pollution and damage to riparian margin.	F	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Wairau Catchment					
23	Upper Opawa River from State Highway 1 to Hammerichs Road	Medium	Fishing - trout, eel. Recreational area - swimming, picnicking, nature watch.	Groundwater level change. Reduction in water quality from adjacent landuse. Stock pollution and damage to riparian margin.	F, CR, AE	M
24	Pukaka Stream and Drain	Medium	Fish habitat - eel, whitebait, trout spawning. Native fish diversity - 6 species. Recreational area - tramping, picnicking, passive. Fishing - Eel.	Instream barriers to fish passage.	F, FS	M
25	Tuamarina River including the Blue Spring	Medium	Fish habitat - adult whitebait. Recreational area - swimming, picnicking.	Reduction in water quality from adjacent landuse. Sedimentation. Instream barriers to fish passage from Wairau River.	F	E
26	Para Swamp	High	Fish habitat - adult whitebait, trout spawning. Outstanding natural wetland area. Bird habitat - grey teal, pukeko, mallard, grey duck, shoveller, Australasian bittern. Native diversity includes threatened banded kokopu. Fishing - trout, eel. Flora – nationally vulnerable species. Recreational area - nature watch, hunting.	Instream barriers to fish passage. Infilling by willow, sediment and weeds. Reduction in water quality from adjacent landuse.	F	M
27	Are Are Creek	Low	Fish habitat - depleted at present. Trout spawning, eel.	Stock pollution and damage to riparian margin.	F, FS	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Out-come
	Wairau Catchment					
28	Onamalutu River	Medium	Fishing - trout. Fish habitat - trout spawning, rare native lamprey and giant kokopu. Unique vegetative habitat at scenic reserve. Native biodiversity - 5 species, giant kokopu.	Reduction in water quality from adjacent landuse. Stock pollution and damage to riparian margin. Instream barriers to fish passage from Wairau River. Low flows due to out of stream use.	F, FS	M
29	Bartletts Creek, Cat Creek, Pine Valley Stream, Top Valley Stream, Waikakaho River and Timms Creek	Medium	Fish habitat - trout spawning, adult trout, native species. Bird habitat - blue duck. Fishing - early season trout. Recreational area - tramping, hunting, picnicking, passive.	Instream barriers to fish passage from Wairau River. Reduction in water quality from adjacent landuse. Stock pollution and damage to riparian margin. Low flows due to out of stream use.	F, FS	M
30	Goulter River	High	Fishing - trout. Bird habitat - blue duck. Outstanding natural area. Fish habitat - trout spawning. Recreational area - tramping, hunting.	Instream barriers to fish passage from Wairau.	F, NS, FS, AE	M
31	Lake Chalice	Very High	Outstanding natural area - unique natural habitat. Native diversity - unique koaro population. Recreational area - tramping, hunting.		F, NS, FS, AE	M
32	Eves Creek	Low to Medium	Fish habitat - trout spawning. Recreational area.		F, NS, FS, AE	M
33	Lake Alexander	High	Outstanding natural area - significant geological site. Bird habitat - little pied shag, black shag, grey duck. Recreation area - hunting, tramping.		F	M
34	Avon River	Medium	Recreation area - hunting, tramping.		F	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
35	Fault Lake	High	Bird habitat - wading birds. Natural wetland. Recreational area - nature watch, passive.	Sedimentation. Reduction in water quality from adjacent landuse.	F	M
36	Possum Stream Swamp	High	Outstanding natural area. Bird habitat - fernbirds.	Land development and drainage.	F	M
	Awatere Catchment					
37	Source to Estuary/Mouth	Medium	Bird habitat and passage - waterfowl, black shags, pied stilts, black-fronted terns, white faced herons, south island pied oyster catcher. Limited fish habitat. Fishing dependant on conditions - trout, eel, whitebait. Braided river habitat.	Low flows due to irrigation abstraction. Stock pollution. Reduction in water quality from adjacent landuse. Development of riparian margin. Low flows and discolouration.	F, FS, CR	M
38	Estuary/Mouth	Medium	Bird habitat - waders, waterfowl, wrybill plover, banded dotterel, white and black fronted terns. Fish habitat. Fishing - trout, eel, whitebait. Recreation - nature watch.	Low flows and discolouration. Development of riparian margin. Reduction in water quality from adjacent landuse.	F, FS	M
39	Lake Jasper	High	Outstanding natural area - raupo and flax vegetation. Bird habitat - mallard, paradise shelduck, shoveller, pukeko, grey teal, crake. Recreational area - hunting.	Land development and drainage. Stock damage to riparian margin. Reduction in water quality from adjacent landuse, and maybe natural causes.	F, NS	M
40	Lower Awatere Tributaries including: Black Birch Stream, Blairich, Scrub Rough Creek and Ring Creek, McRae River, Ises Stream	Medium	Higher water clarity than Awatere River. Limited fishing. Fish habitat - endangered Koaro in Ring Creek, non-migratory galaxiids. Significant areas of indigenous vegetation.		F, FS	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
	Awatere Catchment					
41	Upper Awatere Awatere tributaries including: Hodder River, Tone River, Kennet River, Castle River, Boundary Stream, Penck River and Enchanted Stream	Medium	Recreational area - tramping, hunting. Fish habitat - limited trout spawning, koaro in Penck River, non-migratory galaxiids. Significant areas of indigenous vegetation. Bird habitat - waterfowl, black shags, pied stilts, black-fronted terns, white faced herons, South Island pied oyster catchers. Wilderness area.	Development of riparian margin. Stock pollution.	F, FS	M
	East Coast Catchments					
42	Waima (Ure)River	Medium	Bird habitat. Limited fishing - whitebait. Gorge represents outstanding natural feature. Significant areas of indigenous vegetation. Wilderness area in upper reaches.	Out of stream use during low flows. Stock pollution.	F	M
43	Flaxbourne and Blind Rivers	Low	Recreational area - tramping, picnicking. Fishing - whitebait. Recreational fisheries at mouths. Limited fish habitat.	Development of riparian landscape. Low flows due to out of stream use. Stock pollution.	F	M
	Clarence Catchment					
44	Tarndale Lakes including Bowscale Tarns, Lake Sedgemere, Island Lake, Fish Lake (Fish Lake is in the Wairau Catchment)	Very High	Bird habitat - paradise duck moulting site, Canadian goose, waterfowl and waders including endangered southern crested grebe. Fish habitat - Tarndale bully . Outstanding natural area - intact native aquatic plant community, tussock land, raupo swamp. Recreational area - hunting, tramping, mountain biking, passive. Wilderness area.	Land development and drainage. Stock pollution and damage to riparian margin.	FS, AE	M

#	Location	Class	Important Values	Concerns	Water Quality Classification	Desired Outcome
45	Lake McRae	Very High	Habitat for endangered southern crested grebe. Outstanding natural area - nationally important scientific feature. Intact native aquatic plant community. Recreational area - hunting, tramping, mountain biking, passive.	Land development. Stock pollution and damage to riparian margin.	FS, AE	M
46	Acheron River, Severn River, Alma River and Saxton River	High	Fish habitat - salmon/trout spawning and adult trout, koaro in Alma River. Fishing - headwater trout. Bird habitat - wetland species. Recreational area - hunting, tramping, mountain biking, passive, canoeing, rafting.	Land development.	FS, AE	M

Appendix B

Existing Landcare Groups

Upper Awatere Group

Muller Station	Sections 5/9, 15/41, Parts 1/4, 10/14 Muller Run Sections 42/61, 70/91 Parts 66/69 Fairfield Run, Sections 1, 2, 12, 20, 27 Part Sections 3-11, 13-19, 21, 22-25, 28 and 29 Langridge Run, Awatere Registration District Section 1 Block VI, Section 1 Block IX, Sections 1 and 2 Block X Upcott SD.
Middlehurst Station	Lot 1 DP 6607 Sections 1-7, 54-73 Fairfield Downs District, Sections 1, 4, 5, 13-15, 17, 18, 20-22, 28 and 33, Parts 2, 3, 6-12, 16, 19, 23-27, 29-32, 34-37 Sections 8, 9, 12-27 Upper Fairfield Downs District, Sections 23-50 Middlehurst Run, Sections 38-45 Upcot Run Awatere District, Blocks I-IV, VII, VIII, X-XII and XV Upcot SD, Block XII Spray SD, Blocks XVII and XXII Hodder SD. P 20 Part Pastoral Run 26 Upcot SD.
Mt. Gladstone Station	O 16 Part Pastoral Run 210 in Block VIII Upcot SD and Blocks I, II, V, VI, IX and X Tapuaenuku SD.
Gladstone Downs	Sections 8/13 Parts 1/3 Upper Fairfield Downs District, Sections 6/7, 14/41 Part Sections 4/5 Gladstone Run Awatere District, Blocks XXII and XXIII Hodder SD, Block I Tapaenuku SD, Blocks IV and VIII Upcot SD.
Upcot Station	Lot 1 DP 6607, Sections 1-7, 54-73 Fairfield Downs District, Sections 1, 4, 5, 13-15, 17, 18, 20-22, 28 33 Parts 2, 3, 6-12, 16, 19 23-27, 29-32, 34-37 Sections 8, 9,12-27 Upper Fairfield Downs District, Sections 28-50 Middlehurst Run, Sections 38-45 Upcot Run Awatere District, Blocks I-IV, VII, VIII, X-XII and XV Upcot SD, Block XII Spray SD, Blocks XVII and XXII Hodder SD.
Glenlee Station	Sections 1, 2, 4/40 Part Section 3 Glenlee Run, Sections 62, 64, 66, 68, 70, 72, 74, 76 and 77 Awatere District, Blocks XII, XIV, XVII and XIX Sections 1/2 XXII Hodder SD, Block XII Spray SD - Balance at 20311/300-
Camden Station	P 28 Part Pastoral Run 207 Blocks XIV, XXIV and XXV, Hodder SD, Blocks II, III, IV, VI, VII, IX, and X Tapuaenuku SD.
Awapiri Station	P16 Pastoral Run 209 Blocks XV and XXIV Hodder SD Block XV Blue Mountain SD Blocks IV VIII Tapuaenuku SD and Blocks I, II, VI and VIII Wherenside SD.
Molesworth Station	Runs 226, 227 Pt Run 345 Section 1 SO 19494, Section 1 SO 19467, Section 1 SO 19468 Tarndale and St Helens Run Severn Rainbow Aima Tone Percival and Barefells SD - Bal at 21252/71 141.

Medway Group

The Bolton	DPF 345 Sections 3, 4, 6, and 7 Block IV, Sections 4/6 Block XVI, Hodder SD.
The Jordan	Section 1 Block XIII Hodder SD.
Mt Carmel	Lot 1 DP 3178 and Part Lot 1 DP 344, Lot 2 DP 474, Pt Lot 2 DP 454, Lots 1 and 3 DP 5472, Blocks XVI, XXI and XXV Hodder SD and Block X Blue Mountain SD.
Duntroon Station	Lots 11-12 DP 2341 Block VII Tennyson SD.
Welds Hill	Part Lot 1 DP 3654 Block I Hodder SD.
Aotea Station	Pt Lot 3 DP 4405, Part Section 3, Section 2 SO 6464 Block I Lot 1 DP 4403 Block II Hodder SD.
Medway Hill Station	All DP 807 Part Lot 2 DP 632 Blocks IV, V and XII Blue Mountain SD.
Corleggy Station	DPF 273 Section 2 Blocks V, VI and XII Blue Mountain SD.
Upton Fells Station	Lots 2-3 DP 6091 Block II Taylor Pass SD, Part Lot 7/6 DP 347.
Glen Orkney Station	Lot 2 DP 1361 Blocks IX, X, XV, XVI and XI Blue Mountain SD.
Stronsay Station	Lot 1 DP 1361, Lots 2/3 DP 7761, Blocks IX, X and XI Blue Mountains SD.
Awatere Downs	Pt Lot 2 Lots 3 and 4 DP 2654, Blocks V and IX Blue Mountain SD, Block XII Hodder SD, Block XXI Hodder SD.
Altimarloch	Pt Lot 1 DP 3242 Pt Lot 1 Pt Lots 2 & 4 DP 8605, Blocks I and II Blue Mountain SD.
Blairich	P26 Pt Section 1 Secs 7, 9-11, Block XX Taylor Pass SD.
Black Birch	Pt Lot 1 DP 4909 Sec 1 SO 6591.

Appendix C

Ecological Significance Criteria

The following provides explanations or guidelines for the application of ecological significance criteria in the assessment of sites.

Rankings within each criterion are: **H** = High; **M** = Medium; **L** = Low. They collectively contribute to an overall ranking, indicating the degree of significance. For a site to be considered significant, one of the first four criteria (representativeness, rarity, diversity and pattern or distinctiveness/special ecological characteristics) must rank **M** or **H.**

Representativeness

The site is significant if it contains a good example of one of the characteristic ecosystem types in the region or ecological district.

H: The site contains one of the best examples of the characteristic ecosystem types in the region or ecological district.

M: The site contains one of the better examples, but not the best, of the characteristic ecosystem types in the region or ecological district.

L: The site contains an example, but not one of the better or best, of the characteristic ecosystem types in the region or ecological district.

Rarity

The site is significant if it contains flora or fauna listed as nationally threatened; or the site contains flora or fauna of note in the region or ecological district because of scarcity, local endemism or extreme/anomalous geographic distribution; or the site contains plant or animal communities that are rare nationally, regionally or in the ecological district.

H: The site contains nationally threatened or rare flora, fauna or communities; or the site contains several examples of regionally or locally threatened or rare flora, fauna or communities.

M: The site contains one or a few regionally or locally (but not nationally) threatened or rare flora, fauna or communities.

L: The site contains no flora, fauna or communities threatened or rare in the ecological district, regionally or nationally.

Diversity and pattern

The site is significant if it contains a range of species and ecosystem types that is notable for its complexity nationally, in the region or in the ecological district.

H: The site contains an unusually high diversity of species and ecosystem types.

M: The site contains a moderate diversity of species and ecosystem types.

L: The site contains a relatively low diversity of species and ecosystem types.

Distinctiveness/special ecological characteristics

The site is significant if it contains ecological features that are outstanding or unique nationally, in the region or in the ecological district.

H: The site contains any ecological feature that is unique nationally, in the region or in the ecological district; or it contains several such features that are outstanding regionally or in the ecological district.

M: The site contains ecological features that are notable or unusual but not outstanding or unique nationally, in the region or in the ecological district.

L: The site contains no ecological features that are outstanding or unique nationally, in the region or in the ecological district; i.e. the ecological features are typical rather than distinctive or special.

Size and shape

The site is significant if it is moderate to large in size and is physically compact or cohesive.

H: The site is large in size for the region or ecological district and is compact in shape.

M: The site is moderate in size for the region or ecological district and is compact in shape; or the site is relatively large but not very compact or cohesive.

L: The site is small in size for the region or ecological district, or the site is moderate in size but not at all compact or cohesive.

Connectivity

The site is significant if it is physically connected or close to other natural areas, and/or is part of a larger natural ecosystem.

H: The site is close or well connected to a large natural area or several other natural areas.

M: The site is in the vicinity of other natural areas but only partially connected to them or at an appreciable distance.

L: The site is very isolated from other natural areas.

Sustainability

The site is significant if it is ecologically resilient, i.e. its natural ecological integrity and processes (functioning) are largely self-sustaining.

H: The site can maintain its ecological integrity and processes with minimal human assistance.

M: The site requires some but not much human assistance to maintain its ecological integrity and processes.

L: The site requires much human assistance to maintain its ecological integrity and processes.