Proposed Plan Change 1C (Water Allocation and Use) to the Regional Plan: Water for Otago

APPENDIX 1

Regional Plan: Water for Otago Incorporating Council Decisions on Proposed Plan Change 1C (Water Allocation and Use)

Otago Regional Council

10 April 2010

Regional Plan: Water for Otago

Incorporating Council Decisions on Proposed Plan Change 1C (Water Allocation and Use)

Note: All changes to text in this Plan resulting from Proposed Plan Change 1C as notified, and incorporating Council decisions, are shown in red, with single underlining and ~~strikethrough~~. Reference to the report "Decisions of Council 10 April 2010" is given at the end of each provision where amendment is made to the notified version of the proposed plan change. Page numbering and cross-referencing will be updated before Proposed Plan Change 1C is made operative.

Otago Regional Council
Updated to 10 April 2010

ISBN 1-877265-93-4

Please note that there is an accompanying volume of maps (ISBN ~~1-877265-91-8~~ 1-877265-94-2) which identifies features and areas referred to in this Plan.

All grid references used in this Plan are based on the NZMS 260 Series.

The Waitaki Catchment Water Allocation Regional Plan added new definitions to the Glossary of this Plan. The new definitions only apply where the terms are underlined in this Plan.

Chronicle of Key Events

Key event	Date notified	Date decisions released	Date operative
Regional Plan: Water	28 February 1998	7 July 2000	1 January 2004
Variation No. 1 to the Regional Plan: Water	3 October 1998	7 July 2000	1 January 2004
Waitaki Catchment Water Allocation Regional Plan	19 February 2005	30 September 2005	3 July 2006
Plan Change 1A to the Regional Plan: Water	17 August 2005	1 April 2006	1 August 2006
Plan Change 1B (Minimum Flows) to the Regional Plan: Water	20 December 2008	31 October 2009	1 March 2010
Plan Change 1C (Water Allocation and Use) to the Regional Plan: Water	20 December 2008	10 April 2010	*<Date to be inserted>*

Chairperson's Foreword

The future development and prosperity of Otago depends on water. Much of Otago has long been recognised as a water-short area and consequently Otago has always been at the forefront of water management practice and law in New Zealand. Although Otago has New Zealand's largest river, the Clutha River/Mata-Au with a mean flow of 580 cubic metres per second, Otago also has the most arid areas of New Zealand, Alexandra having a mean annual rainfall of 358 mm.

Otago's economy and pattern of European development is largely a history of how water resources were harnessed and utilised. In pre-European times Otago's waterways and water quality were treasured assets of Maori, and were fundamental to their beliefs, values, customs, travel, settlement and sustenance of life.

How efficiently we use water, how clean we keep our natural water resources, how well we manage water to meet habitat and environmental needs, how sustainably we manage our water resources, will determine how Otago can develop into the future.

This Regional Plan: Water sets the framework for the future management of water in Otago. It gives the pathways forward to a better utilisation and protection of water so that the values, opportunities and needs of Otago's communities can be reasonably met. The Plan is the outcome of eight years of community discussion, comment, submissions and legal processes. It is a plan that reflects the aspirations of Otago people for the future of the Otago Region.

Key thrusts of the Regional Plan: Water are its emphasis on:

- Progressive implementation of a minimum flow regime for streams and rivers,
- Progressive implementation of control levels for groundwater systems,
- Setting a not to be-exceeded "primary allocation" of water that may be taken from streams and rivers,
- Promoting efficiency of water use,
- Implementation of controls on designated wetlands, and
- Protection and enhancement of water quality, with a target of all waters being suitable for human recreation.

On behalf of the Otago Regional Council I thank all the many individuals and community groups who contributed ideas and aspirations into the making of this Plan. All your inputs have made the Plan a better community-based document to shape the future of Otago.

It is with great enthusiasm for the sustainable future development of Otago that the Otago Regional Council brings this Plan into full operative effect on 1 January 2004.

Duncan Butcher
Chairperson
Otago Regional Council

How to Use the Regional Plan: Water

This Regional Plan: Water considers the use, development and protection of the fresh water resources of the Otago region, the beds and margins of water bodies, and the issues associated with that use, development and protection. This Plan provides objectives, policies, rules and other methods of implementation to address those issues. The rules of the Plan determine the status of any particular activity and determine whether a resource consent will be required before that activity can be carried out.

Subject to Sections 86A to 86G of the Resource Management Act, a resource consent is required for any activity which this Regional Plan: Water specifies as being:

(a) A controlled activity;
(b) A restricted discretionary activity;
(c) A discretionary activity; or
(d) A non-complying activity.

In some cases, the Plan specifies certain activities as being prohibited activities. These are activities which cannot occur and are activities for which no resource consent will be issued.

Table of Contents

[Page numbering updated for Council decision, and will be further updated when the plan change is made operative]

Table of Figures

Table of Tables

Decision: E1h

1
Introduction

1.1 Plan purpose

The Otago Regional Council has prepared this Regional Plan: Water to meet its responsibilities under the Resource Management Act 1991. The purpose of this Plan is to provide a framework for the integrated and sustainable management of Otago's water resources. These water resources include the region's lakes, rivers, groundwater and wetlands.

Many activities involving water or water bodies can only occur if they are expressly allowed by a rule in a regional plan, or by a resource consent, including:

- Certain activities in, on, under or over the beds of lakes and rivers (Section 13 of the Resource Management Act).
- The taking, use, damming or diversion of water (Section 14 of the Resource Management Act).
- The discharge of water into water (Section 15 of the Resource Management Act).
- The discharge of contaminants into water or onto or into land in circumstances which may result in that contaminant entering water (Section 15 of the Resource Management Act).

Land use activities are generally allowed unless a rule in a regional plan, or a district plan requires otherwise (Section 9 of the Resource Management Act).

The preparation of a Regional Plan: Water is optional under the Resource Management Act. This Plan contains provisions to avoid the need for resource consents for activities which have no more than minor adverse effects on the environment. For other activities, the rules provide a clear direction for resource users and the community.

The Plan also contains other methods for promoting the sustainable and integrated management of Otago's water resources.

1.2 Area covered by this Plan

This Plan covers all of the fresh water resources in the Otago Region (Figure 1). These include the region's lakes, rivers, groundwater and wetlands. This Plan does not cover coastal waters except where activities on land may affect such waters. Activities within the coastal marine area are covered by the Regional Plan: Coast (also shown in Figure 1).

This Plan applies across Otago encompassing the five territorial local authority districts:

- Waitaki (only that part in the Otago Region. Part of Waitaki District lies in the Canterbury Region and that part of the District is not covered by this Plan);
- Dunedin City;
- Clutha;
- Central Otago; and
- Queenstown Lakes.

Figure 1: Map of Otago

1.3 Plan structure

This Plan is divided into a number of parts:

Chapters 1 to 4
These chapters introduce the Plan, describe the legislative framework relating to water, provide a brief overview of Otago's water resources and outline the perspective of, and issues of concern to, Kai Tahu, Otago's manawhenua.

Chapters 5 to 10
These chapters identify the water management issues in Otago, and contain the objectives and policies with respect to these issues. These provisions will guide the Otago Regional Council, and other consent authorities, when considering resource consent applications. The chapters also detail the environmental results anticipated

from the implementation of this Plan. Each chapter addresses a particular aspect of Otago's water resource:

- Chapter 5: Natural and Human Use Values of Lakes and Rivers.
- Chapter 6: Water Quantity.
- Chapter 7: Water Quality.
- Chapter 8: Beds and Margins of Lakes and Rivers.
- Chapter 9: Groundwater.
- Chapter 10: Wetlands.

Chapters 11 to 14
These chapters contain the rules applying to the use of water and water bodies. When considering undertaking an activity which may affect water or water bodies, these are the rules that must be followed.

Chapter 15
This chapter identifies the methods other than rules that the Otago Regional Council intends to use to assist in the achievement of this Plan's objectives.

Chapters 16 to 19
These chapters identify the main administrative requirements for the use of Otago's water resources, and specify the information required with any resource consent application, the circumstances where a financial contribution may be required, how issues which cross jurisdictional boundaries will be dealt with, and the processes for reviewing and monitoring the Plan.

Schedules - Chapter 20
The schedules are an important supplement to the other chapters, providing details of the values and specific management requirements of particular water resources.

Glossary and Appendices
These provide additional explanations including a glossary of key terms used in this Plan.

Maps
This Plan contains maps (in a separate volume) to be used in conjunction with the provisions of the Plan.

1.4 Process of Plan preparation

A number of legal instruments, which were operative in Otago on 1 October 1991 (when the Resource Management Act came into force), formed rules in the Transitional Regional Plan, constituted by Section 368 of the Resource Management Act. Some of these rules related to water and water bodies, and comprised notices, authorisations, bylaws, determinations and resolutions. This Regional Plan: Water was prepared to partly supersede the Transitional Regional Plan, thus the transitional rules which related to water were deleted when this Plan became operative. The rules deleted, and any replacement provisions, are listed in Schedule 13.

In developing this Regional Plan: Water, the Otago Regional Council consulted with a variety of individuals, groups and agencies.

Following preliminary consultation, a Consultative Draft of the Regional Plan: Water, was released in September 1996. Over 70 meetings were held throughout Otago to introduce and explain the Consultative Draft, and it attracted written comments from 110 individuals and groups representing a wide range of interests. This feedback was used to further refine the provisions of the Plan. Background reports were compiled which provided additional information about aspects of Otago's water resources. These reports remain available from the Otago Regional Council:

- Background Report 1: Water Quantity
- Background Report 2: Water Quality
- Background Report 3: Groundwater
- Background Report 4: Significant Wetlands
- Background Report 5: Resource Description
- Background Report 6: Kakanui Catchment Water Resource Investigations

The Proposed Regional Plan: Water for Otago was notified on 28 February 1998, in accordance with the requirements of the First Schedule of the Resource Management Act 1991. Submissions were received from 280 individuals and groups, followed by 64 further submissions. Many submitters spoke at the 18 public hearings held in Dunedin, Alexandra, Oamaru and Balclutha between 17 August 1998 and 9 November 1998.

Proposed Variation No.1 was notified on 3 October 1998, to manage the construction, reconstruction or modification of defences against water built for the purpose of flood mitigation. Ten submissions and five further submissions were received.

Following the hearings and the consideration of evidence, decisions on the submissions received on both the Proposed Regional Plan: Water and the Proposed Variation No.1 were released on 7 July 2000. Several organisations and individuals made references (appeals) to the Environment Court regarding the decisions. The 171 reference points were resolved by negotiated agreements and Court decisions in the period up to 4 July 2003. These changes were incorporated into the Plan and the Plan made operative.

Proposed Plan Change 1A was notified on 17 August 2005 to make miscellaneous amendments consequential to recent changes to the Resource Management Act and other minor changes. Four submissions and one further submission were received. Following the hearing, decisions on the submissions received were released on 1 April 2006. Plan Change 1A was made operative on 1 August 2006.

On 3 July 2006, the Waitaki Catchment Water Allocation Regional Plan became operative and added new provisions to this Plan.

Proposed Plan Change 1B was notified on 20 December 2008 to set minimum flows and primary allocation limits for the Luggate, Trotters and Waianakarua catchments in Schedule 2A, and to include Schedule 2D outlining matters for consideration when setting minimum flows and primary allocation limits. A total of 71 submissions and six further submissions were received. Following the hearing, decisions on the

submissions received were released on 31 October 2009. Plan Change 1B was made operative on 1 March 2010.

Proposed Plan Change 1C (Water Allocation and Use) was notified on 20 December 2008 to improve the overall effectiveness with which limited water resources are used, enabling the community to benefit from future opportunities to use water. A total of 59 submissions and 16 further submissions were received. Following the hearing, decisions on the submissions received were released on 10 April 2010. Plan Change 1C (Water Allocation and Use) was made operative on <*date to be inserted*>.

Decision: E1a

1.4.1 Satisfying Section 32 of the Act

Section 32 of the Resource Management Act 1991 requires councils, before adopting any objective, policy, rule, or other method, to have regard to:

- Alternatives that may be available; and
- The reasons for and against options, including their costs and benefits.

The Otago Regional Council considered these matters in preparing this Plan and is satisfied that the selected objectives, policies and methods are necessary in achieving the purpose of the Resource Management Act 1991 and are the most appropriate means having regard to their efficiency and effectiveness. The community feedback received on the Consultative Draft Regional Plan: Water, followed by the submissions, further submissions and appeals on decisions made with respect to the Proposed Regional Plan: Water, assisted the Council to make this evaluation.

1.5 Integrated management

This Regional Plan: Water promotes the sustainable management of Otago's water resources. To achieve this, the Plan takes an holistic, integrated approach to resource management, which includes:

- Integration of management responses across resource management agencies.
- Integration toward shared environmental outcomes.
- Integration of policies, action and decision-making needs to be coordinated across regional boundaries.
- Integration of management responses across resource systems.
- Integration of actions across a range of time scales.
- Integration of decision-making with community participation.
- Integration of methods to be used to implement policies.
- Integration across individual decisions.

Although this Plan comprises discrete chapters, these should not be viewed in isolation, as the Plan needs to be read as a whole. The Plan should also be read in conjunction with the Resource Management Act, the Regional Policy Statement for Otago, other relevant Otago regional plans and any relevant district plan. Chapter 2 provides more detail on relationships among resource management documents.

To assist the achievement of an holistic approach to resource management, and to assist users to read the Plan as a whole, this Plan uses a system of cross-referencing to link issues, objectives, policies, rules and methods. Within this system:

- Each issue refers to the relevant objectives and policies in its chapter;
- Each objective refers to the relevant policies in its chapter;
- Each policy refers to the relevant rules in Chapters 12 to 14, and/or the other methods in Chapter 15; and
- Where necessary, particular provisions refer to another chapter if it contains provisions which are significantly relevant.

2

Legislative and Policy Framework

2.1 Introduction

The principal statute under which the natural and physical resources of Otago are managed is the Resource Management Act 1991 (the Act), and it is under this Act that this Plan has been developed. The Act also provides for specific policy statements (i.e. regional policy statements) which have an impact on the management of water and water bodies. Some activities are also subject to the specific requirements of other statutes. Many of New Zealand's statutes reflect international agreements and obligations.

This chapter provides a brief overview of the statutes and other arrangements relevant to the management of water in Otago, and their relationship to this Regional Plan: Water.

2.2 Relationship to other resource management documents

This Regional Plan: Water fits within a framework of international, national, regional and local resource plans and other documents as shown in the following figure:

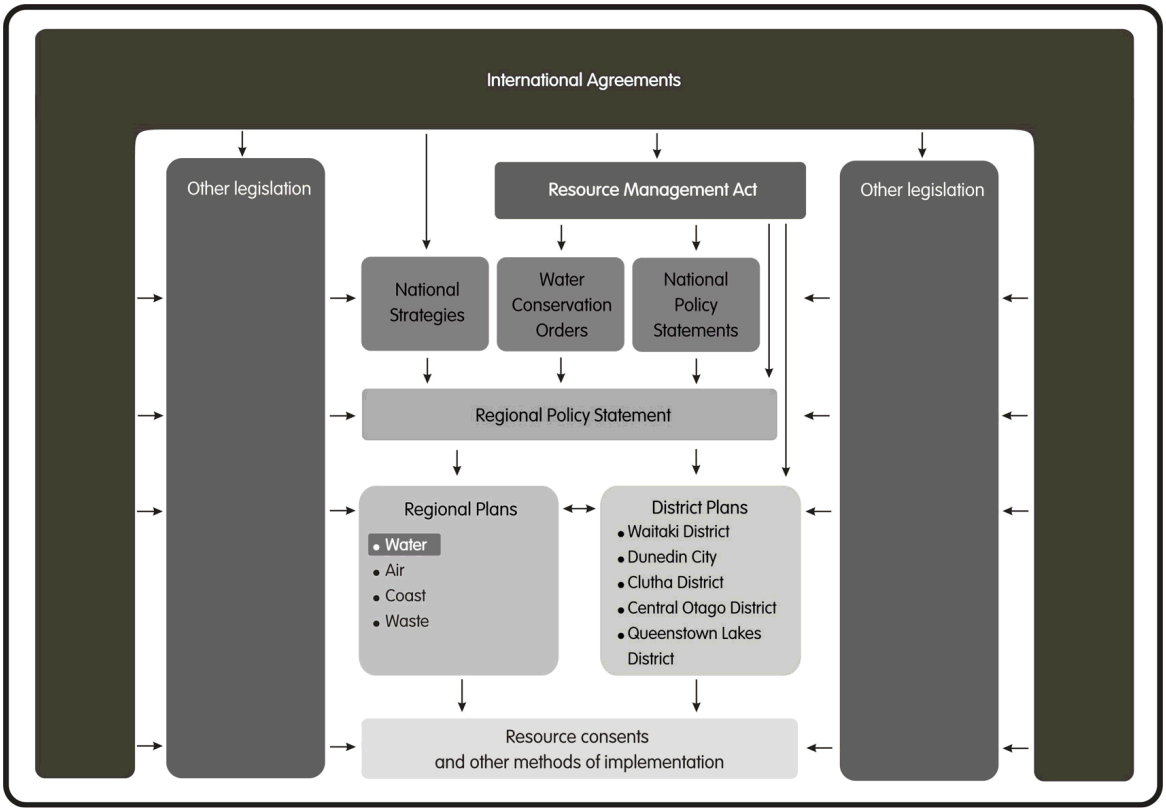


Figure 2: Overview of the resource management framework

Note: For clarity, this diagram presents the resource management framework in a simplified form with key links illustrated.

2.2.1 International agreements and obligations

While the Resource Management Act reflects various international agreements on sustainability, New Zealand is party to several international obligations which have direct implications for the management of water resources, including:

- The Ramsar Agreement[1], which is an inter-governmental treaty for international cooperation for the conservation and wise use of wetland ecosystems.
- The Convention on Biological Diversity[2], ratified by New Zealand, which has objectives including the conservation of biodiversity.
- The Venice Charter 1966, (ICOMOS)[3], also ratified by the New Zealand Government, which is an international charter for the conservation and restoration of monuments and sites of heritage value.

National guidelines or strategies may be issued from time to time by the Government to help meet international obligations. An example is The New Zealand Biodiversity Strategy (see 2.2.4) developed to meet commitments of the international Convention on Biological Diversity.

Principles from these agreements have been taken into account in the preparation of this Regional Plan: Water, to the extent that they are reflected in New Zealand legislation.

2.2.2 Resource Management Act

The Resource Management Act 1991 provides the framework for the management of natural and physical resources in New Zealand. Part II of the Act contains a number of specific provisions which must be taken into account in considering the use, development or protection of Otago's water resources and water bodies.

2.2.2.1 Purpose

Section 5 of the Resource Management Act 1991 states:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, "sustainable management" means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while -

(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) Safeguarding the life-supporting capacity of air, water,

---

1 Davis TJ (1994) *The Ramsar Convention Manual – A Guide to the Convention on Wetlands of International Importance especially as Waterfowl Habitat*. Ramsar Convention Bureau, Paris.

2 United Nations (1992) *Convention on Biological Diversity, 17 June 1992*. United Nations, New York. Reprinted in *Environmental Policy and Law* 22 (4): 251-258.

3 International Council on Monuments and Sites (1966) *International Charter for the Conservation and Restoration of Monuments and Sites.*

soil, and ecosystems; and

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

This Plan has been prepared to enable the Otago Regional Council to promote the sustainable management of the natural and physical resources of Otago, through the management of water and water bodies, and activities that could affect them.

2.2.2.2 Matters of national importance

Section 6 of the Resource Management Act 1991 identifies matters of national importance that the Otago Regional Council must recognise and provide for in managing the use, development, and protection of natural and physical resources:

(a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:

(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

(d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

(f) The protection of historic heritage from inappropriate subdivision, use, and development:

(g) The protection of recognised customary activities.

2.2.2.3 Other matters

Section 7 of the Resource Management Act 1991 identifies a number of additional matters that the Otago Regional Council must have particular regard to in managing the use, development, and protection of natural and physical resources:

(a) Kaitiakitanga:

(aa) The ethic of stewardship:

(b) The efficient use and development of natural and physical resources:

(ba) The efficiency of the end use of energy:

(c) The maintenance and enhancement of amenity values:

(d) Intrinsic values of ecosystems:

(e) Repealed:

(f) Maintenance and enhancement of the quality of the environment:

(g) Any finite characteristics of natural and physical resources:

(h) The protection of the habitat of trout and salmon:

(i) The effects of climate change:
(j) The benefits to be derived from the use and development of renewable energy.

2.2.2.4 Treaty of Waitangi

Section 8 of the Resource Management Act 1991 requires that the Otago Regional Council take into account the principles of the Treaty of Waitangi:

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Kai Tahu runanga were consulted throughout the development of this Plan through a Kai Tahu working group. This Plan also includes a chapter outlining the Kai Tahu perspective on, and concerns about, water resources.

Appendix 3 attaches to the Plan statutory acknowledgements for the Otago region, as required by Section 220 of the Ngai Tahu Claims Settlement Act 1998. These acknowledgements comprise a statement made by Ngai Tahu of the particular cultural, spiritual, historic and traditional association of Ngai Tahu with these areas. The inclusion of Appendix 3 is for the purpose of public information only. It does not form part of the Plan.

2.2.3 Other legislation

While this Regional Plan: Water manages the use, development and protection of Otago's water resources under the Resource Management Act 1991, other legislation may have implications for the management of these resources. Activities controlled by this Plan may also require authorisations under other legislation, which include:

- Soil Conservation and Rivers Control Act 1941;
- Historic Places Trust Act 1993;
- Conservation Act 1987 and related legislation;
- Freshwater Fisheries Regulations 1983;
- Lake Wanaka Preservation Act 1973;
- Ngai Tahu Claims Settlement Act 1998;
- Local Government Acts 1974 and 2002;
- Biosecurity Act 1993;
- Building Act 1991 and the Building Code;
- Health Act 1956;
- Transit New Zealand Act 1989;
- Crown Minerals Act 1991; and
- Hazardous Substances and New Organisms Act 1996 and related regulations.

2.2.4 National strategies

At any time the Government may prepare strategies and guidelines concerning the management of resources.

The New Zealand Biodiversity Strategy was published in February 2000 to meet New Zealand's commitment to the international Convention on Biological Diversity (see 2.2.1). The strategy provides a strategic framework for actions to conserve and sustainably use and manage New Zealand's biodiversity.

2.2.5 Water conservation orders and notices

Part IX of the Resource Management Act provides for water conservation orders where there are waters of outstanding amenity or intrinsic value.

The Water Conservation (Kawarau) Order 1997 was enacted on March 17 1997, gazetted on March 20 1997 and came into force on 17 April 1997. The Order has been recognised and provided for within this Plan. The Water Conservation (Mataura River) Order 1997 was gazetted on 10 July 1997 and commenced on 7 August 1991.

Local water conservation notices, under the former Water and Soil Conservation Act, such as those for Lake Tuakitoto and the Pomahaka River have been incorporated into the provisions of this Plan. As stated in section 1.4, these notices formed part of the Transitional Regional Plan and were superseded by the Regional Plan: Water when it became operative.

Decision: E1e

2.2.6 National policy statements

The Resource Management Act provides for national policy statements to be prepared. Currently there are none that are directly relevant to fresh water. However, as elements of water management will impact on the coastal environment, the New Zealand Coastal Policy Statement (NZCPS) provisions, which relate primarily to the coastal environment, have been considered as necessary.

2.2.7 The Regional Policy Statement for Otago and other regional plans

This Regional Plan: Water must be consistent with the Regional Policy Statement and all other regional plans covering Otago. The Regional Policy Statement is the guiding document for resource management in Otago. It guides all regional and district plans.

Other regional plans for the management of Otago's resources are the Regional Plan: Air, Regional Plan: Coast and Regional Plan: Waste.

The Regional Plan: Air contains rules for activities that this Regional Plan: Water also manages, such as the land application of animal waste and the discharge of pesticides.

The Regional Plan: Coast is concerned with sustainable resource management from the line of mean high water springs to 12 nautical miles offshore (the coastal marine area). This Regional Plan: Water does not deal directly with any matter in the coastal marine area. The boundary between a water body as covered in this Regional Plan: Water and the coastal marine area, is mapped in Schedule 12. In general, all estuaries are within the coastal marine area. The Otago Regional Council intends to ensure that this Plan and the Regional Plan: Coast will be complementary to achieve consistent management for all of Otago's waters.

The Regional Plan: Waste specifically addresses activities including:

- The discharge of hazardous waste;
- The disturbance of land at contaminated sites;
- The operation of facilities for the treatment or disposal of hazardous wastes;
- The discharge of oil or substances containing oil as a dust suppressant on formed roads;
- The discharge of contaminants from landfills (including farm landfills, clean-fill landfills, greenwaste landfills and offal pits); and
- The discharge of contaminants from composting and silage production.

2.2.8 District plans

District plans, developed by territorial local authorities (city and district councils) for the management of land use, may affect the water resource. District plans also cover activities on the surface of water upstream of the coastal marine area. Any district plan within Otago must not be inconsistent with this Plan in regard to any matter of regional significance or for which the regional council has primary responsibility under Part IV of the Act. Some of the policies within Chapters 5 to 10 of this Plan may be implemented through rules in district plans. Formal transfer of some regional council powers and functions to territorial local authorities may occur from time to time.

2.3 Other resource management documents

In accordance with Section 66 of the Act the Otago Regional Council had regard to a variety of additional documents (not illustrated in Figure 2) when preparing this Plan. These included:

- Otago Conservation Management Strategy;
- Kai Tahu ki Otago – Natural Resource Management Plan;
- South Island Eel Management Plan;
- New Zealand Historic Places Register;
- The regional policy statements and regional plans of adjacent jurisdictions; and
- The former Lake Tuakitoto and Lake Hayes management strategies.

3

Regional Description

3.1 Introduction to the water resources of Otago

Water is an integral part of Otago's natural environment. The region has a very significant water resource, as surface water (in lakes and rivers), as groundwater (in aquifers), and as wetlands. Groundwater is water that occupies or moves through spaces in geological formations under the surface of the land. Surface water results either directly from precipitation, or from groundwater that has come to the surface. Wetlands are treated as a distinct water resource in this Plan. The Otago Regional Council is responsible for promoting the sustainable management of these water resources.

This chapter provides background information on the characteristics of surface water, groundwater and wetland resources of Otago, and gives a brief overview of the region's major water bodies. It also describes the subregions as defined for the Plan, providing a short summary of the environmental context in which the water resources occur. Schedule 1 of this Plan provides greater detail on the natural values of the lakes and rivers in each of the subregions listed in this chapter.

3.2 The water resources of Otago

3.2.1 Surface water

Otago's distinctive character is often derived from its lakes, rivers and wetlands. For centuries, Otago's people and communities have used water to provide for their social, economic and cultural well being. This is evidenced in the wide range of heritage values associated with lakes and rivers: from the use of rivers as transport routes by Polynesian settlers, through to their importance in gold mining, some early remnants of which are still visible. The character of the region's water bodies is diverse, reflecting the variation in environmental conditions throughout.

Otago contains many lakes of varying size. Approximately 23% of New Zealand's lake surface area, occurs in Otago. The Clutha River/Mata-Au drains much of the Otago region and is the largest river in New Zealand in terms of the quantity of water carried each year. Seventy five percent of the total flow of the Clutha River/Mata-Au at Balclutha results from the catchments of the three major features of Otago's Lakes district: Lakes Hawea, Wanaka and Wakatipu. Important rivers feeding into the Clutha catchment include the Cardrona, Lindis, Shotover, Nevis, Fraser, Manuherikia and Teviot. The Clutha and its principal tributary, the Kawarau River, pass through spectacular gorges, two of which are dammed for hydro-electricity generation. One of the larger tributaries of the Clutha in its lower reaches is the Pomahaka River, which rises in the mountains above Tapanui.

The second largest catchment in Otago is that of the Taieri River. Rising in the uplands of Central Otago, it snakes among the block mountain ranges before passing through an incised gorge and crossing the Taieri Plain. There it joins the waters of the Lake Waipori and Waihola catchments and becomes tidal before making its way through another gorge to the sea at Taieri Mouth. Its catchment area totals 5650 square kilometres.

Other significant Otago rivers drain the coastal hills in catchments of varying character. In the north, the Kakanui, Waianakarua, Shag and Waikouaiti Rivers rise in high country and pass through predominantly dry downlands. The Tokomairiro River drains rolling country between the Taieri and Clutha catchments. Rivers to the south of Otago, particularly the Catlins area, emerge from wetter, often forested hills.

The environmental context in which Otago's water bodies exist is characterised by:

- High rainfall in the Southern Alps,
- Occasional very low rainfall in the semi-arid Central Otago valleys, with high seasonal evaporation rates and no guarantee of irrigation water availability, and
- High erosion risk in places.

These conditions leave their mark on Otago's water bodies, such as the Shotover River's distinctive colour resulting from a combination of high rainfall and erosion.

Despite the generally large water volumes present in the region, some parts of Otago are among the driest areas in New Zealand. Several rivers in Otago are characterised as being water-short, including the Taieri, Shag and Kakanui Rivers and tributaries. The lack of water is observable in the many small stream stretches, which completely dry up each summer.

3.2.2 Groundwater

Groundwater occurs in many parts of the region and many of Otago's people and communities have come to rely upon this water to provide for their social, economic and cultural well being. There are a number of localities in Otago where groundwater is of particular significance due to existing use or potential demand. At present all of Otago's many aquifers have water of useable quality.

3.2.3 Wetlands

Wetlands are an important component of Otago's water resource. They provide a diverse set of landscape elements, including high altitude blanket bogs and string bogs, saline areas, swamp forest remnants, shallow lake complexes, estuarine saltmarshes and valley floor swamps. These are of particular significance due to their scarcity and ecological and cultural values.

High altitude wetlands, such as those on Otago's block mountain ranges, are often considered important for supporting summer stream flows, as well as their near-pristine ecosystems. Wetlands in more developed landscapes are also valuable sanctuaries for wildlife and mahika kai for Kai Tahu.

Otago contains several large wetland systems of significance for wildlife including the Upper Taieri scroll plain wetland complex and the

Waipori/Waihola wetland complex. Lake Tuakitoto has considerable values, which have been recognised by a Local Water Conservation Notice, the elements of which are carried through into this Plan.

3.3 Subregions of Otago

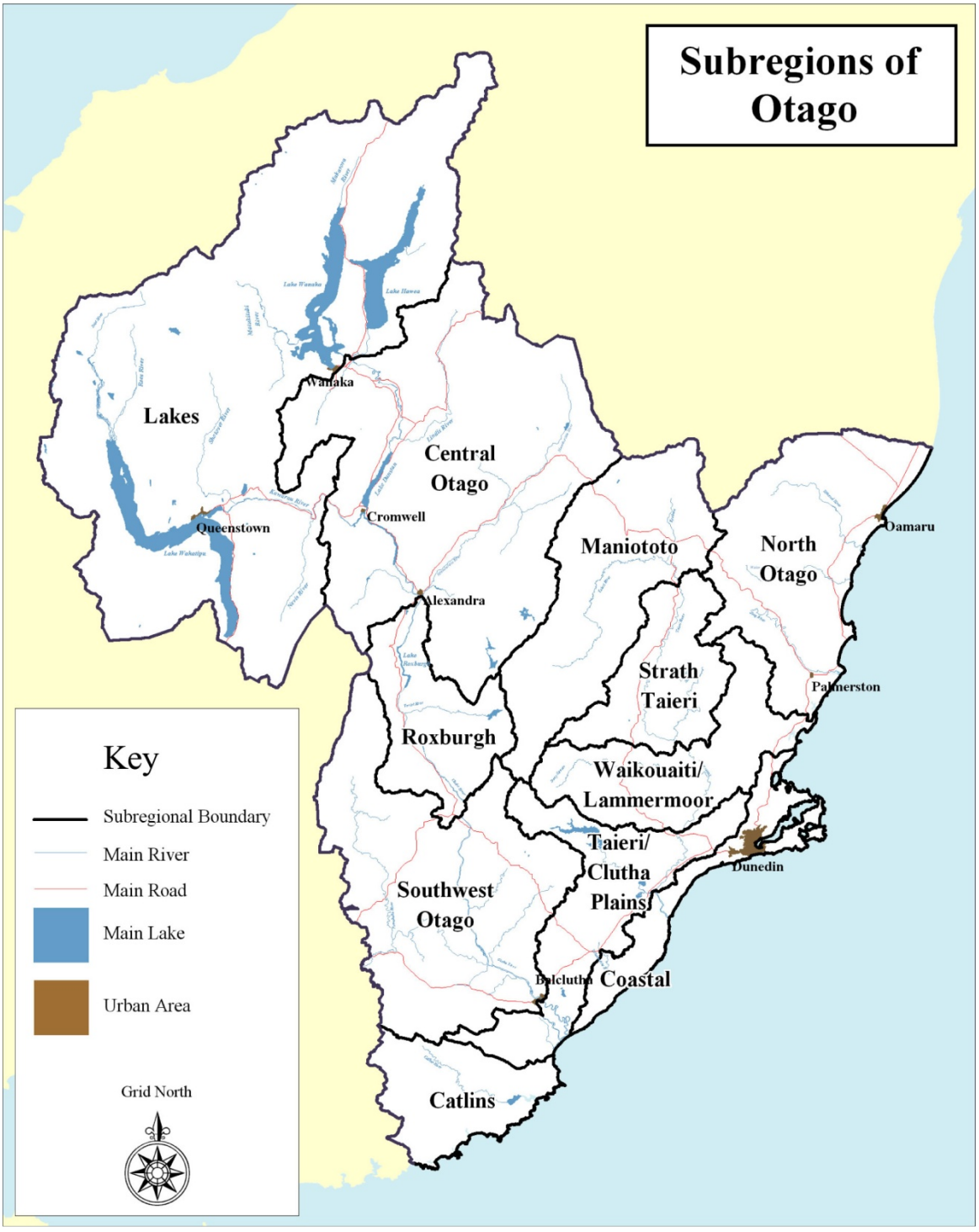


Figure 3: Map of subregions of Otago

3.3.1 North Otago subregion

The North Otago subregion extends from the Waitaki River in the north to the Pleasant River in the south and includes the catchments of the Shag, Waianakarua and Kakanui Rivers. These and other catchments in the subregion are naturally subject to low flows, particularly between November and April, due primarily to climatic factors.

North Otago is not as dry as some inland areas but still experiences a relatively low rainfall. Rainfall varies from less than 600 mm per annum near Oamaru, to in excess of 1000 mm per annum in the Kakanui Mountains. The majority of the coastal downlands have rainfalls in the order of 600 to 700 mm per annum.

The subregion's most highly used aquifers are:

- Lower Waitaki Plains Aquifer;
- Papakaio Aquifer;
- North Otago Volcanics Aquifer;
- Kakanui-Kauru Alluvium Aquifer; and
- Shag Alluvium Aquifer.

3.3.2 Maniototo subregion

This subregion comprises the upper catchment of the Taieri River and is defined by Rough Ridge to the west, the Rock and Pillar Range to the east and the Mount Ida Range and Kakanui Mountains in the north.

The Maniototo Basin experiences very low rainfalls, approximately 400 mm per annum, although higher rainfalls occur in the block mountain uplands surrounding the basin (e.g. 1600 mm per annum on the Rock and Pillar Range). Numerous small streams rising around the basin, for example the Hogburn, are fed by snow-melt, but often have dry stretches by late summer.

The Kye Burn is an important tributary of the Taieri River in this subregion. The Maniototo Irrigation and Hydro Electric Power Scheme (MIHEPS) is a major water augmentation system operating in the Taieri River main stem.

Much of the Maniototo Basin is underlain by an aquifer, known as the Maniototo Aquifer.

3.3.3 Central Otago subregion

Central Otago is a large subregion defined by Rough Ridge in the east, Hawkdun Range, Lindis and Cardrona river catchments in the north, Old Woman and Old Man/Kopuwai ranges to the west and Knobby Range in the south. The landscape is dominated by block mountain and basin topography.

Parts of this subregion have the lowest rainfall in New Zealand, with areas of low elevation experiencing approximately 350 mm per annum, and containing a large area of semi-arid land. Areas in the ranges, particularly in

the Cardrona catchment, can however receive in excess of 1400 mm of rainfall per annum.

The Clutha/Kawarau main stem is the dominant feature of the subregion's water resources, carrying the water eastwards out of Central Otago, and is dammed at Clyde, creating Lake Dunstan. One of the more important tributaries of the Clutha here, the Manuherikia River, is used as a delivery system to provide stored water to irrigators.

There are a number of aquifers in the subregion, which are growing in importance. These are:

- Dunstan Flats Aquifer;
- Earnscleugh Terrace Aquifer;
- Hawea Basin Aquifer (part of);
- Wanaka Basin Cardrona Gravel Aquifer (part of); and
- Cromwell Terrace Aquifer.

There is also an aquifer in the Tarras area (not mapped in this Plan).

3.3.4 Lakes subregion

The Lakes subregion contains a large area of high country and is dominated by the glacial lakes: Lake Wakatipu, Lake Wanaka and Lake Hawea. Catchments are variable in size, with reliable flows.

Rainfalls vary between about 600 mm per annum in the part of the Kawarau Gorge in this subregion, to in excess of 8000 mm per annum in some parts of the Southern Alps which form the headwaters of many of the catchments feeding the Clutha River/Mata-Au system.

The Lake Hawea control structure has an influence on the water level of Lake Hawea and the flow in the Hawea River.

Aquifers in the subregion include the Wakatipu Basin Aquifer and parts of the Hawea Basin and Wanaka Basin Cardrona Gravel Aquifers. There are also aquifers in Glenorchy and Kingston areas (not mapped in this Plan).

3.3.5 Roxburgh subregion

The Roxburgh area is a small subregion defined by the Umbrella and Old Man ranges/Kopuwai in the west and Knobby Range and the Teviot River catchment to the east.

Rainfalls vary from 600 mm per annum in the Clutha Valley to about 1400 mm per annum on the Old Man/Kopuwai Range.

The Clutha River/Mata-Au is the dominant water feature of the subregion, and is dammed at Roxburgh, creating Lake Roxburgh. However, there are numerous small catchments in the upland areas flanking the Clutha.

The subregion's most highly used aquifers are the Roxburgh Basin Aquifer and the Ettrick Basin Aquifer.

3.3.6 Strath Taieri subregion

The Strath Taieri, a valley between the Rock and Pillar Range in the west and Taieri Ridge to the east, is dominated by the Taieri River. The subregion is defined by these block mountain uplands which have many small catchments draining into the Taieri.

The flows in these catchments vary, reflecting a range of rainfalls, from 600 mm per annum on the river flat to more than 1600 mm per annum on the often snowy tops of the Rock and Pillar Range. Catchments on Taieri Ridge frequently dry up in summer.

Groundwater occurs in an aquifer within this subregion (not mapped in this Plan).

3.3.7 Waikouaiti/Lammermoor subregion

The Waikouaiti/Lammermoor subregion is primarily hill country drained by the catchments of the Waikouaiti River, which flows to the sea, and Deep Stream and Lee Stream, which are tributaries of the Taieri River. The Taieri cuts across the middle of the subregion in the deeply incised Taieri Gorge.

Being high in elevation, most areas experience in excess of 1000 mm of rainfall per annum.

A significant proportion of Dunedin's water supply is derived from the rivers in these uplands.

3.3.8 Coastal subregion

The Coastal subregion consists of the Otago Peninsula, including Dunedin, and the Chain Hills from Swampy Summit south to the mouth of the Clutha River/Mata-Au.

Rainfalls vary between 700 mm per annum near Taiaroa Head to in excess of 1400 mm per annum on Swampy Summit and Mount Cargill.

Catchments in the Coastal subregion are characteristically small and are drained by streams which have low and unreliable flows, particularly in summer and autumn. The subregion also contains the lower gorges and mouths of two larger rivers: the Taieri and Tokomairiro rivers.

3.3.9 Taieri/Clutha Plains subregion

This subregion contains sections of the Taieri and Clutha/Mata-Au rivers as they emerge onto their floodplains, as well as the Tokomairiro and Waipori river catchments. The Waipori River was dammed at Waipori for hydro-electricity generation, creating Lake Mahinerangi. Most other catchments

are characteristically small and the streams that flow from them, such as the Puerua River and Lovells Stream, form tributaries of the above rivers.

Rainfalls vary between less than 700 mm per annum on the Lower Clutha and Lower Taieri Plains to in excess of 1600 mm per annum in the Lammerlaw Range in the north.

Some groundwater is taken from aquifers within the Taieri (Lower Taieri Aquifer) and Tokomairiro Plains (not mapped in this Plan).

3.3.10 Southwest Otago subregion

Southwest Otago consists of several catchments flowing into the lower Clutha, the largest of which is the Pomahaka. Other significant catchments in Southwest Otago are the Waiwera, Waitahuna and Tuapeka. The Clutha River/Mata-Au enters the subregion northwest of Beaumont and leaves at Balclutha.

Rainfalls vary between 700 mm per annum in the Lower Clutha Valley to in excess of 1200 mm per annum on top of the Blue Mountains, and about 1400 mm in the Umbrella Mountains at the head of the Pomahaka.

3.3.11 Catlins subregion

The Catlins subregion in southeast Otago is characterised by its native forest remnants, with several water bodies, such as the Maclennan and Tautuku Rivers, in largely unmodified, natural states. The Owaka and Catlins river catchments, like many within the subregion, are small to moderate in size, with reliable flows.

Rainfalls are among the highest in Otago and are in excess of 1600 mm per annum within forested upland areas.

4

Kai Tahu ki Otago Water Perspective

4.1 Whakatauki

"He taura whiri kotahi mai ano te kopunga tai no i te pu au"

"From the source to the mouth of the sea all things are joined together as one"

4.2 Tauparapara

Ko te Tititea te mauka	*Mt Aspiring is the peak*
Ko Nga Tiri Tiri o Te Moana te tahuhu	*The southern Alps are the backbone*
Ko Hawea, Wanaka me Whakatipu-wai-maori nga roto	*Hawea, Wanaka and Whakatipu-wai-maori are the water bodies*
Ko Mataau te awa	*Mataau is the river (Clutha)*
Ko Te Kopuwai te taniwha	*Kopuwai is the guardian*
Ko Araiteuru te tai	*Araiteuru is the tide*
Ko Moana nui a kiwa te moana	*Moana-nui-a-kiwa is the ocean*
Ko Kai Tahu whanui te iwi	*Kai Tahu, Kati Mamoe and Waitaha are the people*

4.3 Manawhenua

Representatives of Te Runanga o Moeraki, Kati Huirapa Runanga ki Puketeraki, Te Runanga Otakou, Hokonui Runanga, Otokia Whanau, Moturata Taieri Whanau and South Otago Runanga provide this perspective on behalf of Manawhenua of the Otago region.

4.4 Kai Tahu's water resource objective

Kai Tahu's objective with respect to the management of Otago's water resource is to ensure consistency with the values of Kai Tahu whanui and to be involved in that management through:

(a) Participation in the planning, implementation and monitoring of the objectives, policies and methods adopted by resource managers; and
(b) Participation in the use, development, and protection of water resources.

4.5 Kaitiakitanga

The responsibility for exercising kaitiakitanga in the Otago region is that of Kai Tahu whanui. Mana and kaitiakitanga are interlinked, those with mana over a region are also kaitiaki to the water resources within that region. Kaitiakitanga is the practical expression of rangatiratanga (authority), it involves the exercise of customary authority over the way a resource is used, managed and protected. To achieve

implementation of kaitiakitanga in the present day, consistent with cultural needs, requires a commitment from those exercising statutory authority to the use of consultation, participation and decision-making processes that directly involve Kai Tahu ki Otago.

Kai Tahu will measure the effectiveness of its opportunities to exercise kaitiakitanga against environmental outcomes. The outcomes sought by Kai Tahu are the continued health and well being of the water resources of the region and cultural usage of these resources.

4.6 Mauri

Giving recognition to the importance of the mauri of all waters is central to the concept and practice of kaitiakitanga from which stems the responsibility and authority to seek maintenance and, where required, improvement of the mauri for all water bodies. The mauri or life force of water is sacred, a value that originates from the dawning of time, and is a link to the very source of tribal creation traditions. A water body with an intact mauri will sustain healthy ecosystems, support mahika kai, provide resource use options and be a source of pride and identity to the people. Culturally, water is regarded with both respect and as a tool to be utilised in a way that does not detrimentally modify the mauri that has sustained successive generations.

4.7 Cultural importance

Water has an important place in ceremonial occasions and is particularly recognised where the cultural components of tapu and noa are at work. Water symbolises the spiritual link between the present and the past, the never-ending source of life, for generations that have gone before and those to follow.

Kai Tahu's priority is to maintain the properties of water that are necessary to ensure the sustainability of customary uses. Customary uses range from the use of water for ceremonial purposes to the maintenance of the quality and quantity of water to sustain mahika kai populations and habitats.

4.8 Mahika kai

The mahika kai custom of producing or procuring food resources from a range of resources throughout the region on a seasonal basis is a fundamental basis of the traditional economy. Maintenance of the custom and knowledge associated with the natural resource is governed by lore. Transfer from one generation to the next of the cumulative knowledge is tied to practical use and management of the mahika kai resource. The water resources of the Otago region provide mahika kai directly, provide ecosystem support for mahika kai species, and support other significant mahika kai environments, for example forest and coastal areas. Sadly, the waterborne mahika kai resource represents a remnant of a once significant resource that has potential for rejuvenation. The elevation in status and priority of the indigenous fishery habitat from a situation of neglect to a valued and unique resource is central to the process of enhancement of Otago's water resources.

4.9 Legislative recognition

Legislation that governs the way resources are used and managed today is giving increased recognition to traditional values and management models.

A principal reason for change has been the recognition given the Treaty of Waitangi, and in particular Article II, which guarantees to protect the chiefly authority that iwi hold over their land, villages and all their taoka. The Maori version is even more explicit in its emphasis on the rangatira authority that iwi and hapu are guaranteed in the use, access and protection of their resources, which include water bodies. The principles of the Treaty have been incorporated into recent legislation developed for governance of the use and management of natural resources. The 'principles' are gaining strength and clarity through case law and precedent.

At the heart of the Treaty Claim submitted by Kai Tahu to the Waitangi Tribunal was the Crown's failure to honour their contractual obligation to provide for Kai Tahu through the land purchase agreements, in particular:
(a) failure to provide ample reserves for their present and future benefit; and
(b) their numerous mahika kai were not reserved and protected for their use.

The Waitangi Tribunal found in favour of Kai Tahu on these issues, particularly in respect of the Kemps 1848 Deed. A number of recommendations were made by the Tribunal which included that remedial action be taken by the Crown to ensure that consultation with Maori is implemented by those with statutory responsibility for the management and protection of the environment, which includes water resources.

As a result of increased recognition of the Treaty, instigated primarily through a number of significant Waitangi Tribunal claims and decisions of other courts, has been the introduction into environmental legislation of Treaty Principles and provision for the recognition of Maori values.

4.10 Natural Resource Management Plan

Kai Tahu ki Otago have identified a range of objectives in their Natural Resource Management Plan (December 1995) to which local authorities and developers need to have regard. They are:

- Recognition of the spiritual and cultural significance of water to Kai Tahu, a value that binds the identity of the iwi to water, and protects the mauri of all water bodies;
- Recognition of wetland systems as an important source of mahika kai, habitat for native flora and fauna, and as a tool for the maintenance of water quality;
- Elimination of the discharge of human waste and other contaminants to water;
- Use of surveys and data collection systems to provide a comprehensive information base on water resources and threats to the life sustaining capacity of water; and
- Establishment of a management regime that identifies water quality and quantity standards consistent with Kai Tahu cultural and spiritual values.

4.11 Management of waters

Kai Tahu have a vision that will see a positive transition from the grievance mode that has bedevilled their culture for over 150 years, caused through the substantial loss and degradation of their resources and suppression of the rangatira authority traditionally exercised over their taoka. Today this vision is becoming more relevant through the validation of values and cultural relationships with resources which are central to the core of Kai Tahu identity.

The process of how this works in practice is being addressed through for example, implementation of the Resource Management Act 1991, the spirit of change, the re-validation of the Manawhenua role through consultation, and development of partnership models.

The ability for Kai Tahu whanau and hapu to re-commune with the places and resources of traditional value to their cultural customs is important. The involvement of Kai Tahu in the management decisions affecting the use and protection of the water resources of Otago is essential. The opportunity for Kai Tahu to be actively involved in the monitoring and enhancement programmes for water and habitat improvement is a vital part of that process. In some cases Kai Tahu may seek full control of some resources through a transfer of powers under Section 33 of the Resource Management Act 1991. That section enables the transfer of powers, providing the body to which power is to be transferred meets a number of criteria including having the technical or special capability or expertise. A special consultative process, pursuant to Section 83 of the Local Government Act 2002, must be undertaken before any transfer of power can proceed.

4.12 Identifying Kai Tahu cultural and spiritual beliefs, values and uses

The identification of Kai Tahu cultural and spiritual beliefs, values and uses supported by the region's water bodies is an important means by which Kai Tahu resource use priorities can be provided for in the planning and implementation stages. The process requires detailed and current information on the values for each water body, and identification of activities and community expectations for the use and management of the region's water bodies. A clear direction for the management, use and enhancement of individual water bodies must give effect to the interests of Kai Tahu. A number of Kai Tahu management guidelines for water management are articulated in the Kai Tahu Ki Otago Natural Resource Management Plan. A Te Runanga O Ngai Tahu Freshwater Policy Statement has been prepared and provides further articulation of Kai Tahu's water perspective.

The principle that all waters and water bodies should be managed to achieve enhancement of Otago's water resources is essential.

4.13 Issues of concern to Kai Tahu

The following issues describe significant concerns of Kai Tahu for their cultural heritage in relation to the water resources of Otago. The cross-references provide links to related provisions elsewhere in this Plan.

The issues and explanations expressed below in 4.13.1 to 4.13.9 describe the significant concerns of Kai Tahu, as expressed by Kai Tahu.

4.13.1 Traditional environmental management systems and values, which include mauri, tapu and rahui, have not been adequately recognised by planning and resource consent processes.

Explanation
The practical implementation of Maori values including mauri, rahui and tapu in the management of the region's water resources will give recognition and effect to the place and role of indigenous values consistent with the provisions of the Resource Management Act.

See Objective: 5.3.2
See also Objectives: 6.3.5, 7.5.1 and 10.3.1

4.13.2 Significant loss of the traditional mahika kai resource and its supporting habitat, or loss of access to it, has occurred and could continue to occur, through:

(a) The consumptive use of water which leads to insufficient flows to support aquatic life;
(b) The development and use of the beds and margins of lakes and rivers;
(c) The placement of structures obstructing migration of aquatic indigenous species;
(d) Artificial fluctuation of levels in lakes and rivers affected by hydro-electricity generation or storage; and
(e) The introduction of aquatic fauna to areas where they were not previously present.

Explanation
The water-based mahika kai resource was a significant part of traditional food. In actual practice it was also a means for the transfer of knowledge from one generation to another, of the customs relating to the mahika kai resource, habitat, places, placenames, seasons, rights to the resource, trails, tribal history and tradition relating to the area. Loss of the mahika kai resource and habitat, or of access to the resource therefore constitutes a greater loss than the loss of the resource itself.

Kai Tahu believes that past management has resulted in over-allocation of water from some catchments. Kai Tahu also believes that the placement of some structures in rivers has resulted in disruption to fish migration and the natural habitat of mahika kai when flows or levels were modified. Predation by, or competition for food or habitat from, introduced species has also contributed to a loss of the mahika kai resource. This loss constitutes one of the main components of the Ngai Tahu Claim submitted to the Waitangi Tribunal. There could be ongoing loss of the remaining mahika kai resource, or of Kai Tahu access to it.

See Issues: 5.2.1, 5.2.2, 5.2.3

See Objectives: 5.3.2 and 10.3.1

4.13.3 Development and use of the beds and margins of lakes and rivers can result in adverse effects on waahi taoka and waahi tapu and Kai Tahu access to them.

Explanation
The effects of a range of activities, including gravel and gold mining activities, river stabilisation works, farming activity within riparian margins and erection of structures on the beds and margins of lakes and rivers have the potential to harm a range of archaeological sites. Many waahi tapu are located on, or are adjacent to, the beds of water bodies, and may be adversely affected by such activities. Loss of access to traditional waahi taoka and waahi tapu sites can also occur as a result.

See Issue: 5.2.2
See Objective: 5.3.2

4.13.4 Cross mixing of water from one catchment to another may adversely affect the mauri of the catchments.

Explanation
The mauri, or life force, of individual catchments is special and distinct, and the characteristics of each differ depending on whether the source is from snow-capped mountains, lakes, lowland runoff or groundwater. This is further influenced by the natural characteristics of the water body, soil type, structure of the river bed, flow, degree of pollution, and contamination from exotic weeds. Historically, those extracting water from one catchment for eventual release to another, have failed to take into account effects on the health and vitality of the affected waters and habitat, or on Kai Tahu cultural and spiritual beliefs, values and uses.

See Issue: 6.2.5
See Objectives: 5.3.2 and 6.3.5

4.13.5 Discharge of human waste and other contaminants to Otago's water bodies from point and non-point sources is an affront to Kai Tahu.

Explanation
The discharge of untreated and treated human waste and other contaminants to water bodies is particularly offensive to Kai Tahu, since water is of both spiritual and practical importance to the indigenous culture of Otago. Degradation of any water body undermines the enduring cultural relationship iwi have traditionally enjoyed and seek to retain with their waters. In addition, the custom of gathering food (mahika kai) from water bodies is jeopardised, since the practice of consuming food gathered from resources contaminated by, in particular, human wastes is abhorrent to iwi. Severance of the spiritual relationship with, and of the customary use of, a water body strikes at the very identity and well being of the indigenous culture. This causes a failure as kaitiaki to protect and pass on to the next generation an intact mahika kai custom.

See Objective: 5.3.2

4.13.6 Many wetlands of significance to Kai Tahu have been lost, and their loss could continue.

Explanation
Wetlands have traditionally been places for gathering mahika kai and a range of other cultural materials important to the customs and economy of Kai Tahu. The loss to Otago of a significant proportion of the wetland resource has had a dramatic impact on the indigenous culture of Otago. Some remaining values of wetlands are highly valued by Kai Tahu iwi, runanga or whanau, and they are considered irreplaceable.

See Issues: 10.2.1 to 10.2.3
See Objective 10.3.1

4.13.7 The impact land use has had on adjacent water, particularly in lower catchment areas, has adversely affected Kai Tahu cultural and spiritual beliefs, values and uses.

Explanation
Kai Tahu has an interest in land use activities throughout a catchment, because:

- Kai Tahu's relationship with a water body extends from its source in the mountains to its entry to the sea;
- Mahika kai species are migratory and at different stages of their lifecycle live in different habitats throughout a catchment; and
- Kai Tahu use different parts of the catchment for different purposes at different times of the year.

Kai Tahu is concerned that an emphasis has been placed on the use and development of land without sufficient consideration being given to the resulting impact on the water resource. The traditional use options and relationship with water resources are compromised in the process.

See Objective: 5.3.2

4.13.8 Restoration and enhancement programmes may be required for water bodies and catchment areas suffering degradation due to developmental pressure.

Explanation
A general decline in the quality and habitat of Otago's water bodies over the last 150 years has occurred as a result of community and individual decisions to use natural and physical resources in a variety of ways that detrimentally impacted on the environment. Failure to recognise or act on the steady deterioration has resulted in a net loss of the cultural and spiritual beliefs, values and uses of Kai Tahu ki Otago.

Restoration of the ecological and cultural values of degraded waters is a fundamental principle of Maori environmental management. Restorative actions, including enhancing low flows, improving water quality, and habitat enhancement, creation and restoration, are priorities for water bodies of particular significance to Kai Tahu.

See Issue: 7.2.2

4.13.9 The traditional relationship of Kai Tahu and their associated values with the water resource has been overlooked in the monitoring of the region's water resources.

Explanation
Monitoring of the state of water resources, monitoring compliance with resource consents and other information gathering processes have been inadequate in producing the level of information required to make sound management decisions. Integration of Kai Tahu cultural and spiritual beliefs, values and uses associated with water bodies, into the data gathering system is required.

See Chapter 19

There are no objectives or policies within this chapter.

5

Natural and Human Use Values of Lakes and Rivers

5.1 Introduction

Water and water resources have played a critical role in the development of Otago. As such, there is a history of long-standing or traditional use of water including Kai Tahu customary uses and, following European settlement, mining, irrigation, recreation, fishing, hydro-electric power generation and waste disposal. The beds and margins of lakes and rivers provide for a range of use and development functions as well.

This Plan seeks to enable people and communities to provide for their social, economic and cultural well being through the appropriate use, development and protection of lakes and rivers and their margins, and other water resources. To achieve this, the Plan recognises the dependence of people and communities on long-standing and traditional uses of these resources, and the need for continued use and development. However, in enabling continued use and development, it is important that adverse effects on the existing natural and human use values supported by lakes and rivers and their margins are avoided, remedied or mitigated.

This chapter provides for the natural and human use values supported by Otago's lakes and rivers and their margins. These characteristics are important to, or are an essential part of, ecological communities, or are enjoyed or utilised by people and communities, including Kai Tahu.

Schedule 1 identifies particular natural and human use values supported by Otago's lakes and rivers. These are:

(a) Ecosystem values, outstanding natural features and landscapes, significant habitat of indigenous fauna and significant indigenous vegetation and the degree of development (Schedule 1A);
(b) Water supply values (Schedule 1B);
(c) Registered historic places (Schedule 1C); and
(d) Spiritual and cultural beliefs, values and uses of significance to Kai Tahu (Schedule 1D).

The Plan also identifies significant wetlands in Schedule 9. While these wetlands have significant natural and human use values they are addressed separately in Chapter 10 Wetlands, where the objective is to maintain or enhance wetland values.

Schedule 1 does not specifically identify natural character, amenity, existing lawful uses or all heritage values. This is because every lake and river contains some element of natural character or provides some amenity, and most are, or have been, used for economic, cultural and social benefit in some way. However, these are still important natural and human use values and, as such, are dealt with in this chapter.

The maintenance or enhancement of natural and human use values is a fundamental principle of this Plan. These values can be adversely affected by the use, development or protection of land or water resources, including:

(a) The taking, damming and diversion of surface water, including the management of lake levels;
(b) The taking of groundwater (since this activity can affect surface water);
(c) Discharges to water, and onto or into land in circumstances which may result in

a contaminant entering water;
(d) Land use activities, particularly those in, on, under or over the bed or margins of lakes or rivers.

This chapter contains issues, objectives and policies that apply to all of these activities as they may adversely affect natural and human use values. Chapters 6 to 9 address the more specific elements relating to these same activities.

5.2 Issues

5.2.1 The use and development of Otago's water resources, lakes and rivers may have the potential to:

(1) Adversely affect:
- **(a) Outstanding natural features and landscapes;**
- **(b) Areas with a high degree of naturalness;**
- **(c) Indigenous vegetation, habitats of indigenous fauna, and habitats of trout and salmon;**
- **(d) Ecosystem values;**
- **(e) Water supply values;**
- **(f) Heritage values of sites, buildings, places or areas;**
- **(g) Natural character;**
- **(h) Amenity values; and**
- **(i) Existing lawful activities; and**

(2) Cause or exacerbate flooding, erosion, land instability, sedimentation or property damage,

associated with the region's lakes and rivers.

Explanation

Otago's lakes and rivers support considerable natural values, identified in (a) to (d) of the issue above. These natural values have considerable intrinsic worth. They can, however, be highly valued by the region's people and communities due to the opportunity for a wide range of recreational and aesthetic appreciation. Human use values, identified in (e) to (i) of the issue, are those elements which involve either active or passive human use of water resources. The second part of the issue identifies the possibility that use and development can cause or exacerbate adverse effects from hazards.

The region's lakes and rivers are diverse and the natural and human use values supported by them vary. Most of the natural and human use values included in the issue are identified for particular lakes and rivers, or groups of such water bodies, in the following schedules to this Plan:
(i) Schedule 1A for values (a) to (d);
(ii) Schedule 1B for value (e); and
(iii) Schedule 1C for registered historic places, which comprise part of value (f).

Schedule 1 is not intended to specifically identify natural character, amenity values, existing lawful uses of resources, archaeological sites, or sites, buildings, places or areas with interim historic place registration, as many of

these are difficult to specify, or will change over time. Because these values apply generally to every lake or river, they need to be investigated on a case-by-case basis.

Any use of water that affects the water in a lake, river or aquifer, or the water body itself, can adversely affect the natural and human use values supported by lakes or rivers. Activities of particular concern are:
(a) The taking, damming and diversion of water; and
(b) Discharges to water, and to land in circumstances which may result in a contaminant entering water.

Any reduction in the ability of lakes and rivers to support natural and human use values, which is caused by these activities, is of concern due to the importance of the values to Otago's ecosystems and to the region's present and future generations.

Objectives: 5.3.1, 5.3.3, 5.3.4, 5.3.6, 5.3.7, 5.3.8; Objectives in Chapters 6 to 9
Policies: 5.4.1, 5.4.2, 5.4.3, 5.4.5, 5.4.8 to 5.4.13, 8.5.1

5.2.2 Land use activities, including those in, on, under or over the bed or margins of lakes and rivers, can degrade the natural and human use values supported by Otago's lakes and rivers.

Explanation
Land use activities can degrade water resources, in terms of water quantity, water quality and the natural character of lakes and rivers. Natural events, such as flooding, can also adversely affect natural and human use values. Such effects are addressed in Chapter 8. Land uses can also exacerbate the adverse effects of natural events. Activities in, on, under or over the bed or margin of lakes and rivers, including activities associated with structures, alteration of the bed or the management of vegetation, can have direct adverse effects on such water bodies. Land uses that occur beyond the margins of lakes and rivers also have the potential to adversely affect water. Some land uses can increase the volume of contaminants entering a lake or a river, and land use change can lead to changes in flood characteristics and catchment yield. Any degradation of the water resource is likely to adversely affect the natural and human use values supported by the water body.

Objectives: 5.3.1, 5.3.3, 5.3.4
Policies: 5.4.1, 5.4.2, 5.4.5, 5.4.8 to 5.4.13
See also: Chapter 7, Chapter 8

5.2.3 The use and development of water resources, and activities in, on, under or over the beds or margins of Otago's lakes and rivers can reduce existing public access to and along such margins.

Explanation
The use and enjoyment of Otago's water resources is important to Otago's people and communities, and visitors to the region. Public access to or along the margins of lakes or rivers provides the opportunity to experience the

many uses and values of the water resource. The importance of public access is recognised by Section 6(d) of the Resource Management Act and Policy 6.5.10 of the Regional Policy Statement for Otago, where provision is made to maintain and enhance public access to and along lakes and rivers except where restriction is necessary for the protection of certain natural and human use values, and in other circumstances, as specified in Policy 5.4.6.

Objectives: 5.3.5
Policies: 5.4.6, 5.4.7, 5.4.13

5.3 Objectives

5.3.1 To maintain or enhance the natural and human use values, identified in Schedules 1A, 1B and 1C, that are supported by Otago's lakes and rivers.

Explanation
Otago's lakes and rivers contain significant natural and human use values, which vary throughout the region. These are identified for specific lakes and rivers, or groups of such water bodies, in Schedules 1A, 1B and 1C of this Plan. These schedules are not exhaustive, but reflect the level of knowledge of individual water bodies during the Plan-making process and may be amended through a Plan Change. This objective not only seeks to avoid the loss or degradation of the specified values, but also provides for their enhancement.

Principal reasons for adopting
This objective is adopted to ensure that water use and land use activities are managed so that the natural and human use values supported by Otago's lakes and rivers can continue to exist. These values are significant due to the opportunity for enjoyment or appreciation by the region's people and communities, and their own intrinsic value.

Policies: 5.4.1, 5.4.2, 5.4.5, 5.4.8, 5.4.9, 5.4.11, 5.4.12, 5.4.13, 8.5.1

5.3.2 To maintain or enhance the spiritual and cultural beliefs, values and uses of significance to Kai Tahu, identified in Schedule 1D, as these relate to Otago's lakes and rivers.

Explanation
Chapter 4 of this Plan identifies the issues of concern to Kai Tahu. The issues reflect the strong relationship Kai Tahu have with Otago's lakes and rivers through their spiritual and cultural beliefs, values and uses associated with water. These beliefs, values and uses are identified for specific lakes and rivers in Schedule 1D of this Plan. This objective seeks to avoid their loss or degradation and, where possible, enhance them. These schedules are not exhaustive, but reflect the level of knowledge of individual water bodies during the Plan-making process and may be amended through a Plan Change.

Principal reasons for adopting
This objective is adopted to protect the relationship Kai Tahu have with Otago's water resources. It is intended to ensure that Kai Tahu spiritual and cultural beliefs, values and uses associated with water can continue. The importance of this provision is recognised by Section 6(e) of the Resource Management Act and the Regional Policy Statement for Otago.

Policies: 5.4.1, 5.4.2, 5.4.4, 5.4.6; Policies in Chapters 6 to 10

5.3.3 To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development.

Explanation
The natural character of Otago's lakes and rivers and their margins is made up of a range of physical, ecological and cultural qualities. These relate to the lake's or river's topography, including the setting and bed form, natural flow and level characteristics, ecology, and the extent of development within the catchment. The degree of natural character and what is considered to be inappropriate subdivision, use and development, will vary from place to place.

Principal reasons for adopting
This objective is adopted to ensure that the effects of activities that use land or water do not reduce the natural character of lakes and rivers and their margins. Otago's people and communities value this natural character and its protection is a matter of national importance under Section 6(a) of the Resource Management Act.

Policies: 5.4.2, 5.4.5, 5.4.8, 5.4.11 to 5.4.13

5.3.4 To maintain or enhance the amenity values associated with Otago's lakes and rivers and their margins.

Explanation
The amenity values associated with Otago's lakes and rivers and their margins are the natural and physical qualities and characteristics that contribute to people's appreciation and enjoyment of the water body. This appreciation and enjoyment relates to the pleasantness, aesthetic coherence and cultural and recreational attributes of a lake or river. The ability to appreciate amenity values may be facilitated by physical development such as structures and through access provisions.

Principal reasons for adopting
This objective is adopted to ensure that activities that use land or water do not remove or reduce opportunities for the enjoyment or appreciation of Otago's lakes and rivers, and where appropriate to provide for the enhancement of amenity values. This reflects the importance of amenity values to the region's people and communities.

Policies: 5.4.2, 5.4.5, 5.4.9, 5.4.11 to 5.4.13

5.3.5 To maintain or enhance public access to and along the margins of Otago's lakes and rivers.

Explanation
Public access to and along the margins of lakes or rivers provides the opportunity for recreational use and aesthetic appreciation of Otago's water bodies. This public access may be gained through legal access provisions or through informal arrangements. Existing public access shall be maintained or enhanced, subject to consideration of the effect on public access, and the agreement of landholders. There may be situations where it is necessary to restrict access as defined in Policy 6.5.10 of the Regional Policy Statement.

Principal reasons for adopting
This objective is adopted to provide for the management of water, and bed or margin activities consistent with Section 6(d) of the Resource Management Act and the Regional Policy Statement for Otago, which seek to maintain or enhance public access.

Policies: 5.4.6, 5.4.7, 5.4.13

5.3.6 To provide for the sustainable use and development of Otago's water bodies, and the beds and margins of Otago's lakes and rivers.

Explanation
The primary function of the Plan is to provide for the sustainable use, development, and protection of water bodies and the beds and margins of lakes and rivers. This objective recognises that traditionally people have made extensive use of Otago's water resources and the ability to continue to sustainably use these resources is important.

Principal reasons for adopting
This objective is adopted to ensure continued access to Otago's water and associated resources for a range of existing and new uses. This recognises the need for Otago's people and communities to provide for their economic, social and cultural well being including existing use rights.

Policies: 5.4.3, 5.4.11 to 5.4.13

5.3.7 To maintain the heritage values associated with Otago's lakes and rivers, and their margins.

Explanation
Heritage values associated with the bed or margin of a lake or river warrant being appropriately maintained. This objective applies to heritage values in Otago including those identified in Schedule 1C of this Plan, archaeological sites and sites with interim registration as historic places. Note that heritage values identified in any district plan will be given due regard in processes under this Plan.

Principal reasons for adopting
This objective is adopted to ensure that resource use and development activities do not remove or reduce opportunities for the study, enjoyment or

appreciation of the significant heritage values of Otago's lakes and rivers and their margins. This reflects the importance of heritage values to the region's people and communities.

Policies: 5.4.2, 5.4.10, 5.4.13

5.3.8 To avoid the exacerbation of any natural hazard or the creation of a hazard associated with Otago's lakes and rivers.

Explanation
People and communities rely on existing standards of protection from natural hazards, such as flooding, to be maintained or enhanced. Any activity that results in a hazard such as flooding, erosion, land instability or sedimentation, or in property damage could adversely affect the health, safety and well being of people and communities. In controlling activities that could affect the behaviour of a hazard associated with lakes or rivers, it is important to prevent the exacerbation of the effects from a hazard or the creation of a hazard, on Otago's people, communities, and infrastructure, and natural and human use values.

Principal reasons for adopting
This objective is adopted to ensure that the use or development of water or water body resources does not result in new hazards, or in natural hazards leading to greater adverse effects.

Policies: 5.4.2, 5.4.13

5.4 Policies identifying and protecting natural and human use values of lakes and rivers

5.4.1 To identify the following natural and human use values supported by Otago's lakes and rivers, as expressed in Schedule 1:

(a) Outstanding natural features and landscapes;
(b) Areas with a high degree of naturalness;
(c) Areas of significant indigenous vegetation, significant habitats of indigenous fauna, and significant habitats of trout and salmon;
(d) Ecosystem values;
(e) Water supply values;
(f) Registered historic places; and
(g) Spiritual and cultural beliefs, values and uses of significance to Kai Tahu.

Explanation
The above natural and human use values are identified for particular lakes and rivers, or groups of such water bodies, in the following schedules to this Plan:
(a) Schedule 1A for values (a) to (d);
(b) Schedule 1B for value (e);
(c) Schedule 1C for value (f); and
(d) Schedule 1D for value (g).

This will allow for such values to be given appropriate protection when managing activities that could adversely affect them, particularly when considering resource consents. Where further natural and human use values are identified, in addition to those identified in Schedule 1, they can still be given recognition when considering individual resource consents. Note that Policy 10.5.2 of the Regional Policy Statement for Otago provides criteria for significance regarding areas of significant indigenous vegetation and significant habitats of indigenous fauna. Other scheduled values are established to provide certainty and to meet the requirements of the Objectives and Policies in Chapter 6 of the Regional Policy Statement for Otago. These schedules are not exhaustive, but reflect the level of knowledge of particular water bodies during the Plan-making process. Where additional specific natural and human use values are identified, the schedules can be amended by way of the plan change procedure.

Principal reasons for adopting
This policy is adopted to identify specific natural and human use values supported by Otago's lakes and rivers.

Rules: 12.1.3.1, 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1

Other methods: 15.2.3.1, 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.2.9.1, 15.3.2.1, 15.4.3.2, 15.5.1.1, 15.5.1.2, 15.6.1.1, 15.9.1.1 to 15.9.1.3

5.4.2 In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding, in preference to remedying or mitigating:

(1) Adverse effects on:
- **(a) Natural values identified in Schedule 1A;**
- **(b) Water supply values identified in Schedule 1B;**
- **(c) Registered historic places identified in Schedule 1C, or archaeological sites in, on, under or over the bed or margin of a lake or river;**
- **(d) Spiritual and cultural beliefs, values and uses of significance to Kai Tahu identified in Schedule 1D;**
- **(e) The natural character of any lake or river, or its margins;**
- **(f) Amenity values supported by any water body; and**

(2) Causing or exacerbating flooding, erosion, land instability, sedimentation or property damage.

Explanation
The natural and human use values of Otago's lakes and rivers can be adversely affected by the following activities:
(a) Taking, damming and diversion of surface water;
(b) Taking of groundwater where there is a close connection to surface water;

(c) Discharges to water, and to land in circumstances which may result in a contaminant entering water;
(d) Activities in, on, under or over the bed or margins of lakes or rivers.

Some activities can cause or exacerbate hazards and lessen the ability of people and communities to prevent, or protect themselves from the hazard.

When considering these activities, priority must be given to avoiding adverse effects, in preference to remedying or mitigating them, on the identified values of Otago's lakes and rivers. The opportunity to do so will arise when preparing or reviewing plans under the Resource Management Act and when considering applications for resource consents. The avoidance of adverse effects on the identified values will be sought in the first instance.

Where adverse effects are considered to be unavoidable, a resource consent may be declined or, if granted, may be subject to conditions requiring unavoidable adverse effects to be remedied or mitigated. In the case of diversion, reclamation or damming, appropriate compensation may be required as provided for by Policies 6.5.6 and 8.4.2.

With respect to heritage values covered by this policy, archaeological sites are protected under Section 10 of the Historic Places Act from being destroyed, damaged, or modified.

Principal reasons for adopting
This policy is adopted to ensure that the natural and human use values of Otago's lakes and rivers are maintained or enhanced. It is important to retain these values due to their significance to the region's communities, including Kai Tahu, and their intrinsic value. Activities that can affect water, lakes and rivers need to be managed so that any adverse effects on the values identified in this Plan are avoided, and where adverse effects are unavoidable they shall be remedied, mitigated or, in the case of diversion, reclamation or damming, appropriately compensated for. Similarly, some activities require management to ensure that the health and safety of Otago's people and communities, and natural values are not adversely affected through causing or exacerbating a hazard.

Rules: 12.1.3.1, 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1

Other methods: 15.2.3.1, 15.2.4.1, 15.2.4.2, 15.2.5.1, 15.2.6.1 to 15.2.6.3, 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.2.9.1, 15.3.2.1, 15.3.3.1, 15.3.3.2, 15.3.4.1, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2, 15.9.1.1 to 15.9.1.4

5.4.3 In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding adverse effects on:

(a) Existing lawful uses; and
(b) Existing lawful priorities for the use,
of lakes and rivers and their margins.

Explanation
The existing lawful uses of Otago's lakes and rivers and their margins can be adversely affected by the following activities:
(a) Taking, damming and diversion of surface water;
(b) Taking of groundwater (where there is a close connection to surface water);
(c) Discharges to water, and to land in circumstances which may result in a contaminant entering water; and
(d) Activities in, on, under or over the bed or margins of lakes or rivers.

When considering these activities, regard must be had to avoiding adverse effects on existing lawful uses of Otago's lakes and rivers and their margins. The avoidance of adverse effects on existing lawful uses will be sought in the first instance. Where adverse effects are considered to be unavoidable, a resource consent may be declined or, if granted, be subject to conditions requiring the adverse effects be remedied or mitigated.

Recognition will also be given to the existence of existing lawful priorities for the use of water.

This policy is intended to provide a measure of protection for existing lawful use rights regarding lakes and rivers and their margins, that may be affected by any other activity under consideration. It is not intended to mean that each existing lawful use right is to be preserved unchanged, but recognises that lawfully established uses should have a reasonable expectation to continue, without being affected by new activities. The review, renewal or replacement of any existing lawful use right will be subject to the requirements of this policy, Policy 5.4.2 and other relevant objectives and policies in this Plan.

Principal reasons for adopting
This policy is adopted to ensure that existing lawful uses of Otago's lakes and rivers and their margins are recognised and that a reasonable level of ongoing security is provided. Activities that can affect the lawful uses of lakes and rivers and their margins need to be managed so that any adverse effects are avoided in preference to remedied or mitigated.

Rules: 12.1.4.2 to 12.1.5.1, 12.2.3.1 to 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1

Other methods: *15.2.3.1, 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.2.9.1, 15.3.1.1, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2, 15.6.1.1, 15.7.1.1, 15.8.1.1, 15.9.1.1, 15.9.1.3, 15.9.1.4*

5.4.4 To recognise Kai Tahu's interests in Otago's lakes and rivers by promoting opportunities for their involvement in resource consent processing.

Explanation
In terms of processes under the Resource Management Act, with respect to the use of water, this policy intends that Kai Tahu will be treated as an affected party regarding non-notified consents, and be notified of any notified resource consent application. This will allow Kai Tahu to assess the implications of each resource consent application on their spiritual and cultural beliefs, values and uses. Kai Tahu's beliefs, values and uses, as they relate to lakes and rivers, are identified in Schedule 1D of this Plan.

Principal reasons for adopting
This policy is adopted to ensure that Kai Tahu have the opportunity to be involved in the management of activities that may adversely affect their spiritual and cultural beliefs, values and uses as they relate to lakes and rivers. Such involvement recognises the mana and kaitiaki role of Kai Tahu in respect of those lakes and rivers. The relationship of Kai Tahu with water is a matter of national importance which must be recognised and provided for under Section 6(e) of the Resource Management Act.

Rules: All rules except prohibited activity rules and permitted activity rules
Other methods: *15.2.8.3, 15.2.9.1, 15.9.1.1 to 15.9.1.4*

5.4.5 To recognise the Water Conservation (Kawarau) Order 1997 by:

(a) Preserving, as far as possible, the waters set out in Schedule 1 of the Water Conservation Order in their natural state;
(b) Protecting the outstanding characteristics of waters set out in Schedule 2 of the Water Conservation Order; and
(c) Sustaining the outstanding amenity and intrinsic values set out in Schedules 1 and 2 of the Water Conservation Order.

Explanation
The Water Conservation (Kawarau) Order 1997 restricts or prohibits the Otago Regional Council's functions and powers under Section 30(1)(e) and (f) (as they relate to water) to:
(a) Retain, as far as possible, in their natural state, water bodies preserved by the Order; and
(b) Sustain and protect the outstanding characteristics of the identified water bodies.

~~The Water Conservation (Kawarau) Order is reproduced in Schedule 11 of this Plan.~~ The values identified within the Order are included in Schedule 1A of this Plan.

Principal reasons for adopting
This policy is adopted to give effect to the Water Conservation (Kawarau) Order 1997.

Rules: 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.1.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1
Other methods: 15.2.5.1, 15.2.6.1 to 15.2.6.3, 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2

Decision: E1e

5.4.5A To recognise the Water Conservation (Mataura River) Order 1997 by ensuring that the grant or exercise of any water permit or discharge permit, in respect of any parts of the protected waters that lie within Otago, does not contravene the provisions of the Order.

Explanation
The Water Conservation (Matarua River) Order 1997 restricts or prohibits the Otago Regional Council's functions and powers under Section 30(1)(e) and (f) (as they relate to water) to prevent:
(a) The reduction of the rate of flow below the minimum rate of flow specified in the Order; and
(b) The damming of protected waters, which includes the Mokoreta River and each of its tributaries, if the dam would harm salmonid fish spawning or prevent the passage of salmonid fish; and
(c) The discharge into the protected waters if the effect of the discharge would be to breach the provisions and standards of the Order.
Values of the Mokoreta River, the upper reaches of which lie in Otago, are included in Schedule 1A of this Plan.

Principal reasons for adopting
This policy is adopted to give effect to the Water Conservation (Matarua River) Order 1997.

Rules: 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.1.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1
Other methods: 15.2.5.1, 15.2.6.1 to 15.2.6.3, 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2

Decision: E1e

5.4.6 Legal public access to and along the margins of lakes and rivers will only be restricted where necessary:

(a) To protect areas of significant indigenous vegetation and/or significant habitats of indigenous fauna;

(b) To protect Kai Tahu spiritual and cultural beliefs, values and uses;
(c) To protect the health or safety of people and communities;
(d) To ensure a level of security consistent with the purposes of a resource consent; or
(e) In other exceptional circumstances sufficient to justify the restriction notwithstanding the national importance of maintaining that access.

Explanation
This policy recognises that it may be necessary to restrict legal public access in certain circumstances. Legal public access provision includes legal roads, marginal strips, esplanade reserves, esplanade strips, access strips and Walkways. Existing legal public access should not be restricted unless the circumstances are exceptional and can be justified when measured against the maintenance and enhancement of public access as a matter of national importance. Exceptional circumstances may include protecting heritage values including historic places and archaeological sites.

Landholders have the right to restrict access on and across their land. Access across land is often available where the landholder has been consulted and grants permission.

Principal reasons for adopting
This policy is adopted to ensure that existing legal public access is maintained or enhanced. It also recognises that it may be necessary to restrict public access to protect values supported by the water body, to protect public health or safety or to ensure a level of security consistent with the purpose of a resource consent. The policy implements Policy 6.5.10 of the Regional Policy Statement for Otago.

Rules: 12.3.3.1, 12.3.4.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 14.3.2.1
Other methods: 15.2.3.1, 15.2.7.1, 15.2.8.1, 15.4.1.1, 15.4.2.1

5.4.7 Where existing public access to or along the margins of Otago's lakes or rivers is restricted by activities in, on, under or over the bed or margin, the provision or enhancement of alternative access:

(a) May be required with respect to the restriction of existing legal public access; and
(b) Will be promoted with respect to the restriction of informal access arrangements.

Explanation
Public access may unavoidably be restricted by activities in, on, under or over the bed or margin of Otago's lakes and rivers. Where legal public access is restricted under the circumstances identified in Policy 5.4.6, there may be a requirement for alternative access to be provided or enhanced, preferably in the same area, by the person responsible for restricting the public access. The provision of alternative access where informal access

arrangements are compromised will also be promoted. Such arrangements are voluntarily provided by the landholder.

Principal reasons for adopting
This policy is adopted to provide for the maintenance of public access in circumstances where restriction of existing public access is unavoidable. If alternative access is provided or enhanced, the activity will result in no loss of public access to the region's water resources.

Rules: 12.3.3.1, 12.3.4.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 14.3.2.1
Other methods: 15.2.3.1, 15.2.7.1, 15.2.8.1, 15.4.1.1, 15.4.2.1

5.4.8 To have particular regard to the following features of lakes and rivers, and their margins, when considering adverse effects on their natural character:

(a) The topography, including the setting and bed form of the lake or river;
(b) The natural flow characteristics of the river;
(c) The natural water level of the lake and its fluctuation;
(d) The natural water colour and clarity in the lake or river;
(e) The ecology of the lake or river and its margins; and
(f) The extent of use or development within the catchment, including the extent to which that use and development has influenced matters (a) to (e) above.

Explanation
The features of lakes and rivers which can contribute to their natural character are identified above. Policy 5.4.2 gives priority to avoiding adverse effects on natural character, in accordance with Section 6(a) of the Resource Management Act. Therefore, these features will need to be taken into account when preparing plans under the Act, and when considering applications for resource consents. Lakes and rivers with a high degree of natural character can be more significantly affected by activities than those which have already been substantially modified.

Principal reasons for adopting
This policy is adopted to ensure that features contributing to the natural character of Otago's lakes and rivers are recognised. In this way, the natural character of Otago's lakes and rivers and their margins, which is enjoyed and appreciated by Otago's people and communities, can be protected from inappropriate subdivision, use and development.

Rules: 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1
Other methods: 15.4.3.2, 15.6.1.1, 15.9.1.1 to 15.9.1.4

5.4.9 To have particular regard to the following qualities or characteristics of lakes and rivers, and their margins, when considering adverse effects on amenity values:

(a) Aesthetic values associated with the lake or river; and
(b) Recreational opportunities provided by the lake or river, or its margins.

Explanation
The qualities and characteristics of lakes and rivers which can contribute to amenity values and their appreciation are identified above. These reflect the existing character of these water bodies, as may have been modified by resource use and development. It is also recognised that the nature of amenity values can change over time. The recreational opportunities provided by Otago's lakes and rivers and their margins can include angling for sports fish, hunting game birds and a range of other active and passive recreation.

Policy 5.4.2 gives priority to avoiding adverse effects on amenity values. Therefore these qualities and characteristics will need to be taken into account when preparing plans under the Resource Management Act and when considering applications for resource consents.

Principal reasons for adopting
This policy is adopted to ensure those elements that contribute to the amenity values of Otago's lakes and rivers and their margins are recognised. In this way, these values, which are enjoyed and appreciated by Otago's people and communities, can be protected from inappropriate use and development.

Rules: 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1
Other methods: 15.4.1.1, 15.6.1.1, 15.9.1.1, 15.9.1.2

5.4.10 In the management of any activity involving surface water or the bed or margin of any lake or river, particular regard will be given to the heritage value of any site, building, place or area.

Explanation
Many sites, buildings, places or areas, which are valued for their links with the region's history, are associated with Otago's lakes and rivers. These values must be taken account of when considering applications for resource consents where the use or development of water resources, or the beds or margins of lakes or rivers, may adversely affect the values.

Policy 5.4.2 provides for the recognition and protection of archaeological sites and registered historic places listed in Schedule 1C. Policy 5.4.10 will give due regard to other sites of heritage value.

Principal reasons for adopting
This policy is adopted to ensure that significant heritage values on the bed or margin of a lake or river that are not archaeological sites or specifically identified on Schedule 1C, are recognised and protected from inappropriate use and development in order to achieve their maintenance in terms of Objective 5.3.7.

Rules: 12.1.5.1, 12.2.4.1, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.3, 15.4.2.1, 15.9.1.1, 15.9.1.2

5.4.11 To provide for activities that have no more than minor adverse effects on water resources, lakes and rivers without the need for a resource consent.

Explanation
The rules chapters of this Plan identify a number of permitted activities that may occur without the need for a resource consent. Providing the permitted activity conditions are met, the activity will have no more than a minor adverse effect.

Principal reasons for adopting
This policy is adopted to avoid unnecessary regulation of activities involving water that are unlikely to result in significant adverse effects on the natural and human use values of Otago's lakes and rivers or the needs of other users.

Rules: All permitted activity rules

5.4.12 To promote the establishment of, and support, appropriate water user groups to assist in the management of water resources.

Explanation
Water user groups can assist the Otago Regional Council to manage Otago's surface and groundwater resources. In the same way that it supports landcare groups, the Otago Regional Council can support water user groups by providing hydrological and biological information, and advice on options for managing particular activities that may affect water quantity, water quality and the nature of flow and sediment processes. Such a group can provide advice to the Council, for example on the likely effects on a water body of a new take.

Principal reasons for adopting
This policy is adopted to take full advantage of local knowledge of water user needs to ensure local circumstances are taken into account in the maintenance or enhancement of natural and human use values. This will facilitate appropriate management of surface and groundwater and, where necessary, any interactions between them, and enable users to get involved in that management.

Other methods: *15.2.3.1, 15.2.8.3, 15.3.1.1, 15.3.2.1, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2, 15.7.1.1, 15.9.1.1 to 15.9.1.3*

5.4.13 To encourage and support community initiatives that assist in the achievement of the maintenance or enhancement of lakes and rivers and their margins, and other water resources.

Explanation
The Otago Regional Council can assist in the achievement of the Plan's objectives by encouraging and supporting voluntary initiatives, including:

(a) The preparation and implementation of codes of practice, management guidelines or systems developed by resource users, industry, local authorities, and other interest groups as appropriate; and
(b) Practical mechanisms to influence the use, development or protection of lakes and rivers and their margins, and other water resources, and the effects of land-based activities on water resources, including water body enhancement or remedial work, public access proposals or conservation measures.

Assistance may be in the form of providing appropriate information, funding, facilitating meetings and other communication, or providing works and services.

Principal reasons for adopting
This policy is adopted to encourage voluntary efforts which are often more effective at achieving appropriate management of lakes and rivers and their margins, and other water resources, than regulations. This is due to community
ownership of issues and their management. Such community initiatives can help to minimise the need for regulation.

Other methods: *15.2.1.1, 15.2.2.1, 15.2.3.1, 15.2.4.2, 15.2.5.1, 15.2.6.1, 15.2.6.2, 15.2.6.3, 15.2.8.3, 15.3.1.1, 15.3.2.1, 15.3.3.1 15.4.1.1, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2, 15.6.1.1, 15.7.1.1, 15.9.1.1 to 15.9.1.3*

5.5 Anticipated environmental results

5.5.1 Kai Tahu spiritual and cultural beliefs, values and uses associated with water or lakes and rivers are maintained or enhanced.

5.5.2 Outstanding natural features and landscapes associated with lakes and rivers are protected from inappropriate use and development of water and land resources.

5.5.3 Areas of significant indigenous vegetation, significant habitats of indigenous fauna, and significant habitats of trout and salmon are protected.

5.5.4 Aquatic community health and diversity in lakes and rivers are maintained or enhanced.

5.5.5 People and communities can continue to access the resources of lakes and rivers and their margins.

5.5.6 Significant heritage values associated with the beds or margins of lakes and rivers are protected from inappropriate use and development of water and land resources.

5.5.7 The natural character of Otago's lakes and rivers is protected from the inappropriate use and development of water and land resources.

5.5.8 People and communities can continue to enjoy and appreciate the amenity values of Otago's lakes and rivers.

5.5.9 Public access to and along Otago's lakes and rivers is maintained or enhanced.

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

6

Water Quantity

6.1 Introduction

Water is an important resource to many of Otago's people and communities due to its use for domestic and ~~public~~ community water supply, stock drinking water, irrigation, hydro-electric power generation and industrial supply. This chapter ~~deals with~~ addresses resource use conflicts related to the quantity of water in lakes, ~~and~~ rivers and aquifers. As activities change the quantity of water in these water bodies, the people and communities who are reliant on this water, and its life-supporting capacity, become affected.

Opportunities arise to use all available water effectively and efficiently when people within river catchments, or wider areas including underlying aquifers, work co-operatively together. ~~Resource conflicts~~ Conflicts arise ~~from activities such as~~ when demand to ~~taking~~ take, ~~damming~~ dam or ~~diversion of~~ divert water affects other resource consent holders, instream values, groundwater systems, and recreation and other ~~instream~~ natural and human use value needs, particularly when supplies are naturally limited. Demand may exceed supply during periods of low flow in several Otago subregions, including Central Otago, Maniototo and North Otago.

A number of Otago water bodies have water taken from them through the exercise of mining privileges (now called deemed permits). ~~These privileges~~ Deemed permits were granted under past mining legislation, and provided for the taking, damming and discharging of water. However, most of these takes are now used for irrigation purposes rather than for mining, and all expire on 1 October 2021. The transition to resource consents under the Resource Management Act will recognise current access to water, but will also consider the purpose of use for the water, and protection of aquatic ecosystems and natural character of the affected water bodies. Appendix 2 presents a brief discussion on ~~mining privileges~~ deemed permits in respect of water ~~(deemed permits)~~.

This chapter, along with the relevant rules in Chapter 12, ensures that water will be managed in a sustainable manner. This is achieved through the regulation of the taking, damming or diversion of water. The chapter also promotes management of the rationing of water takes during periods of water shortage by resource users where this can be effective. This chapter applies in detail the direction given by the Regional Policy Statement for Otago to the management of activities affecting water quantity.

There is an important relationship between water quantity and quality, which is recognised in this chapter. A reduction in the quantity of water in a lake or river can affect its capacity to assimilate contaminants and can lead to higher water temperatures under low flow conditions.

The water allocation, minimum flow and aquifer provisions of this chapter are intended to provide for the maintenance of aquatic ecosystem and natural character values of water bodies, while providing for the sustainable taking of water for use. ~~The provisions for the regulation of takes, in terms of minimum flow and allocation limits, are considered to be generally conservative of aquatic life and natural character.~~ Allocation beyond those requirements must have regard to any potential adverse effects on the natural and human use values of affected water bodies,

including effects arising from any loss of capacity to assimilate contaminant discharges, and any raising of water temperatures.

Aquatic ecological communities that are of importance to Otago's biodiversity may depend on the character of a particular aquifer and on how water is allocated from it. Aquifers may also support important wetlands, community water supply and economic activities.

Chapter 7: Water Quality provides for the management of contaminant discharges at source.

Note: The provisions in this chapter are in addition to those in Chapter 5, which seek to maintain or enhance the natural and human use values supported by lakes and rivers.

Decisions: E1b, B4c, E1g

6.2 Issues

6.2.1 The taking of water can reduce the life-supporting capacity of aquatic ecosystems and the natural character of Otago's rivers.

Explanation
As water is taken from water bodies, lake levels and river flows may fall below that which is required to support their aquatic ecosystems and protect their natural character. As the supply of water diminishes naturally during dry periods, the demand for water increases, and this in turn increases the potential for stress on the water body and the life it supports.

Objectives: 6.3.1
Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3

6.2.1A *[From 9.2.1]* ~~**Over abstraction**~~ **The taking of** ~~**groundwater**~~ **water** ~~**in**~~ **from** ~~**Otago**~~ **Otago's aquifers can lead to:**

(a) Long term depletion of groundwater levels and water storage volume; and
(b) Loss of artesian conditions; and
(c) Short and long term depletion of surface water; and
(d) Contamination of groundwater or surface water resources; and
(e) Aquifer compression.

Explanation
~~Over abstraction occurs when~~ When groundwater is taken for consumptive use from the aquifer ~~at a rate~~ in quantities greater than it is being replaced by aquifer recharge, long term and potentially irreversible adverse effects can occur.

<Cross references to be added>

Decision: E1h

6.2.2 ~~**The consumptive uses**~~ **Use of Otago's water resources can be constrained by insufficient supply of water.**

Explanation
Natural resource limits can lead to demand for water exceeding its supply. The quantity of water supplied naturally by a catchment is a function of many factors including precipitation, topography and hydrological characteristics of the catchment. Where the water supply is unable to meet the potential demand, primary and secondary industries that depend on water can be adversely affected.

Objectives: 6.3.2
Policies: 6.4.1 to 6.4.21, 6.5.2 to 6.5.5, 6.6.1 to 6.6.3

Decision: B1a

6.2.3 **Opportunities for the wider use of available water resources are constrained by:**

(a) ~~**inefficient**~~ **Inefficient or inappropriate** ~~**water use**~~ **practices; and**
(b) **Consent holders retaining authorisation for more water than is actually required for their purpose of use.**

Explanation
A range of domestic, agricultural, industrial and commercial uses rely on sufficient quantities of water in Otago. However, wider use of the water is constrained by water shortages. ~~Such~~ The effects of water shortages can be exacerbated ~~arise for either of two reasons: the natural limits of the water resource or the~~ when practices are inefficient or inappropriate ~~water use practices~~. ~~The latter can result in the waste of water, particularly through the following:~~ For example, the following may be inefficient or inappropriate:

(a) Water being lost through leakage or evaporation from distribution systems;
(b) Not utilising the most efficient means of taking or using the water; ~~and~~
(c) Taking more water than is needed~~.~~ and not identifying how much water is taken;
(d) Exporting water from water-short catchments;
(e) Taking water on an individual basis, when there is an opportunity for taking cooperatively with regard to the wider community and environment;
(f) Taking water from established sources, regardless of feasible alternatives;
(g) Poorly sited, constructed and maintained bores or excavations into aquifers; and
(h) Securing water in consents which is more than that which is needed for their purpose of use.

Transporting water from areas where water is scarce, and delivering it to locations where water is plentiful is poor management of the water resource. Excessive losses through water transportation could result in

water not being available for local uses. Potential users might also find less allocation is available as a result of water being secured by existing consents, but not being used.

Objectives: 6.3.4
Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3

Decisions: B4c, B4a, B12a

6.2.4 The rate at which water is taken can affect lawful activities.

Explanation
The rate at which water is taken for consumptive use by particular users, or groups of users, can compromise the use of a water body by other users where, for example, there is less water available for those taking water, or the assimilative capacity of the water body is reduced. The rate of take refers to the quantity of water taken over a certain period of time. Where the ability of existing users to access water is compromised by new takes of water, potential for conflict among these users is created. There is a need to minimise any conflicts that may arise, and to ensure people and communities can continue to derive the benefits from water taken, through equitable access to water.

Objectives: 6.3.2, 6.3.3
Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3

6.2.4A *[From 9.2.2]* **The taking of water from one bore can lower the water level in neighbouring bores.**

Explanation
Takes of groundwater can adversely affect other existing groundwater takes through bore interference. Bore interference relates to the temporarily reduced ability of users in a localised area to take water due to the taking of water from another bore that reduces the pressure or the level of groundwater. The potential for interference is related to the proximity of neighbouring bores, the transmissivity within the aquifer and the rate at which water is taken from the new bore. Such interference should be minimised because of the likely conflict among users of groundwater.

<Cross references to be added>

Decision: E1h

6.2.5 The inter-catchment transfer of water can lead to adverse effects in the receiving catchment, due to the mixing of water.

Explanation
Water can be taken from one place to another to augment supplies and provide for growth in water demand. The transfer of water from one catchment to another, however, can result in the introduction of species to

areas where they are not already present, such as trout or pest plants. The mixing of waters from different catchments may lead to a reduction in water quality in the receiving catchment, where the waters have different characteristics. This mixing is also an affront to the values of Kai Tahu because where water is sourced from another catchment (as defined by the coastal mouth) the mauri of the receiving water body is adversely affected.

Objectives: 6.3.5
Policies: 6.5.5

6.2.6 The control of flows can result in adverse effects in the river.

Explanation
The control of water flows from dams, diversions, augmentation, flood control, and other activities can have positive effects for the community, the ecology and instream values of a river. However, the activity can modify naturally variable flow regimes in terms of:

(a) Long periods of low flow, which may adversely affect natural and human uses and other people using a river;
(b) Long periods of high flow, which may adversely affect natural and human uses and other people using a river, and the stability of river beds and banks; and
(c) The rates of change of flow, which may adversely affect natural and human uses of a river.

Where flows are being managed at a dam they can also affect lake levels upstream and this is addressed in Issue 6.2.7.

Objectives: 6.3.6
Policies: 6.5.4, 6.5.6

6.2.7 The management of lake levels can lead to adverse effects in the environment.

Explanation
The management of lake levels, brought about by artificial control, can change:

(a) The form and topography of the lake and the stability of the shore and bed of a lake;
(b) The water level of the lake and its fluctuation.

The environment surrounding lakes has developed as a consequence of, or adjusted to, the previously occurring hydrological conditions. Changes to these conditions through the control of levels may upset the existing balance between lake and lake shore environment.

Objectives: 6.3.7
Policies: 6.5.1 to 6.5.3, 8.4.2

6.2.8 Opportunities for establishing minimum flow regimes on a number of streams and rivers are constrained by mining privileges (now called deemed permits).

Explanation
Mining privileges (see Appendix 2) are an issue peculiar to Otago because of the large number that have been granted and that are still able to be used. Mining privileges are not subject to the same type of management conditions (such as the necessity to adhere to a minimum flow established under this Plan) as other water permits. For some catchments mining privileges can de-water part of some rivers during the irrigation season, which may impact on instream values.

Policies: 6.6.3
Other methods: 15.7.1.1, 15.9.1.1 to 15.9.1.3
Monitoring and Review 19.3 (8)
Appendix 2

6.3 Objectives

6.3.1 To retain flows in rivers sufficient to maintain their life-supporting capacity for aquatic ecosystems, and their natural character.

Explanation
This objective seeks to avoid the loss or degradation of aquatic ecosystems supported by rivers and the natural character of those rivers. This can be achieved by maintaining flows necessary for the life-supporting capacity for aquatic ecosystems and the natural character of those rivers. By providing for aquatic life and natural character, any adverse effects on other natural and human use values will be no more than minor.

Surface water often has a dynamic hydrological connection with groundwater, which needs to be adequately understood to ensure sustainability of these resources, which may involve more than just a single catchment.

Principal reasons for adopting
This objective is adopted in recognition of the importance of river flows in sustaining aquatic life and the natural character of Otago's rivers, and to ensure that this role continues.

Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3
See also: 9.4.9

6.3.2 To provide for the water needs of Otago's primary and secondary industries, and community domestic water supplies.

Explanation
The economic, social and cultural well being of Otago's people and communities relies on them securing suitable quantities of water. The present and reasonably foreseeable needs for water will therefore need to be

met. This includes existing consumptive users who rely on current takes of water, as well as hydro-electric power generation and other non-consumptive users.

Principal reasons for adopting
This objective is adopted to ensure continued access for the taking of water. This recognises the importance of water in maintaining Otago's communities and their primary and secondary industries.

Policies: 6.4.1 to 6.4.21, 6.5.2 to 6.5.5, 6.6.1 to 6.6.3

6.3.2A *[From 9.3.2]* **To maintain long term ~~aquifer yield~~ groundwater levels and water storage in Otago's ~~groundwater resources~~ aquifers.**

Explanation
The ~~yield~~ levels and pressures of groundwater ~~from~~ in aquifers can be reduced where water is taken at a greater rate than it is being replaced by aquifer recharge. This objective seeks to avoid any such long term or irreversible reductions in aquifer volume through appropriate management of groundwater takes.

Groundwater often has a dynamic hydrological connection with surface water. This connection needs to be adequately understood to ensure sustainability of these water resources, which include any river, lake or wetland dependent on groundwater levels.

Principal reasons for adopting
This objective is adopted to ensure the continued availability of groundwater for existing and future users, and for natural and human use values of connected surface waters.

<Cross references to be added>

6.3.3 To minimise conflict among those taking water.

Explanation
The taking of water by one user can reduce the amount of water available for other users, creating or exacerbating the potential for conflict. It is important that conflict among users is minimised. This can be achieved through the consideration of the effect of new takes of water on the exercise of lawfully established takes of water and by maintaining existing priorities.

Principal reasons for adopting
This objective is adopted to ensure continued access for the taking of water. This recognises the investment that Otago's people and communities have made in resources to take and utilise water, and the need to avoid wastage of these resources.

Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3

6.3.4 To maximise the opportunity for diverse consumptive uses of water which is available for taking.

Explanation
It is important that the opportunity exists for people and communities to utilise water available for consumptive use. Benefits able to be derived from water taken should be as diverse as the community demands. As such, those taking water should not be unnecessarily restricted in the uses to which the water can be put.

Principal reasons for adopting
This objective is adopted to enable Otago's people and communities to benefit from the consumptive use of water that is available for taking.

Policies: 6.4.1 to 6.4.21, 6.6.1 to 6.6.3

6.3.5 To minimise adverse effects on the quality of receiving water, including its ecology and mauri, where such water is subject to any new inter-catchment transfer of water.

Explanation
Inter-catchment transfers of water can increase the supply of water available for consumptive and other uses. New transfers, however, may result in the degradation of receiving water quality, or the introduction of species to areas where they are not already present. The objective is to maintain existing conditions as far as practicable. Where new transfers mix waters from different catchments, the objective will recognise the importance of the water body's mauri to Kai Tahu, and minimise any adverse effects on it.

Principal reasons for adopting
This objective is adopted to limit the adverse effect on any receiving catchment or its mauri caused by new transfers of water between catchments.

Policies: 6.5.5

6.3.6 To minimise any adverse downstream effect of managed flows.

Explanation
The control of water flows from activities including damming, diversion, flow augmentation and flood control has contributed to the social and economic well being of Otago's people. Modified flows downstream of such activities, however, can have adverse effects where the flows or variations in flows may not provide for the requirements of natural and human use values, existing lawful uses, or may adversely affect bed or bank stability. The passing of appropriate flows may be required to ensure that any adverse effect of the controlled flow is remedied or mitigated. The appropriateness of these flows will be determined by the nature and the flow requirements of:

(a) Any natural and human use values that exist; and
(b) Other uses of water that occur,

downstream of the activity.

Principal reasons for adopting
This objective is adopted to ensure that the control of flows is managed to address the likely adverse effects of that control. This is because other users of water and the natural and human use values can be particularly vulnerable to prolonged low flows and to sudden changes in flow.

Policies: 6.5.4, 6.5.6

6.3.6 To minimise the adverse effects from fluctuations in the levels of controlled lakes.

Explanation
Levels in controlled lakes are subject to fluctuations due to the active management of the lake. This management is enabled through a control structure such as a dam. Fluctuating lake levels may be deemed inappropriate when, as a result of the frequency, range, and rates of change in lake levels, they lead to an adverse effect on the environment surrounding, and within, the lake.

Principal reasons for adopting
This objective is adopted to ensure that the control of lake levels is managed to address the likely adverse effects of lake level fluctuation. This is because other users of water and the natural and human use values can be particularly vulnerable to excessive drawdown and rates of change of the lake level.

Policies: 6.5.1 to 6.5.3, 8.4.2

6.4 Policies applying to the management of the taking of water

Index to policies in 6.4

Decisions: A1a, B4c, E1a, A3g, A3h, A3c, A5d, B12a, B7a, B8a

Integrated Water Management

Decision: A1a

6.4.0 To recognise the hydrological characteristics of Otago's water resources, including behaviour and trends in:
(a) The levels and flows of surface water bodies; and
(b) The levels and volumes of groundwater; and
(c) Any interrelationships between adjoining bodies of water,
when managing the taking of water.

Explanation

The lack of uniformity in size or behaviour of lakes and rivers across Otago means they can vary from month to month, depending on climatic variability and trends in taking, thus influencing the availability of water.

Aquifers have different geological characteristics which can affect the ease of water movement within them ("transmissivity") and their inherent storage capacity ("storativity"). Most aquifers contribute water to wetlands, lakes, springs and the base flow of streams and rivers, while the flows in some rivers will support aquifer levels. Lowering groundwater levels through takes from coastal aquifers can result in seawater intruding inland.

Before the Council can allocate water for taking, or grant a resource consent, there needs to be adequate understanding of the hydrological characteristics of potential sources. This includes knowledge of river flows and groundwater levels, interactions among connected ground and surface water bodies and net outflows of freshwater from aquifers. Integrated management of Otago's water resources requires knowledge of available water quantity from all sources.

Principal reasons for adopting

This policy is adopted to ensure an adequate understanding of the hydrological characteristics of water bodies is obtained before allocating water for taking, to avoid adverse effects on water quantity. As knowledge about the nature of the connection among water bodies increases, there will be opportunities to incorporate local conditions within water management.

<Cross references to be added>

Decision: E1a

6.4.0A *[From 6.4.15 and 9.4.8]* **To ensure that the quantity of water granted ~~under a resource consent for the taking of water~~ to take is no more than that required for the ~~intended~~ purpose of use ~~of that water having regard to the local conditions.~~ taking into account:**

(a) How local climate, soil, crop or pasture type and water availability affect the quantity of water required; and

(b) The efficiency of the proposed water transport, storage and application system.

Explanation

When considering applications for resource consents to take water, the actual quantity required for the ~~intended~~ purpose of use of the water taken must be reflected in any ~~resource~~ consent granted. ~~Given the diverse nature of the Otago region, those requirements may also be affected by conditions within the catchment, and these should also be taken into account in determining the appropriate quantity of water to be granted.~~ Reasonably foreseeable future growth, seasonal crop rotations, water storage or changes in water use may be considered. While it may not be possible to avoid all wastage of water, every effort shall be made to reduce wastage.

The consent holder may benefit from any further efficiencies gained during the life of the consent.

Principal reasons for adopting
This policy is adopted to ensure that wastage is avoided when ~~the~~ water ~~allocated~~ is granted to any ~~take~~ use under a ~~new~~ resource consent ~~is no more than the actual requirements of the user~~. This will enable more people to benefit from water available for ~~consumptive~~ use.

<Cross references to be added>

Decisions: B4c. B4b, B4d, B6a, B1a

6.4.0B To promote shared use and management of water that:

(a) Allows water users the flexibility to work together, with their own supply arrangements; or

(b) Utilises shared water infrastructure which is fit for its purpose.

Explanation
Shared consents to take and use water provide:

- Benefits for the water users, including making the best use of available water;
- Opportunities for shared investment in, and optimal use of, water transport and storage infrastructure;
- Economies of scale in managing use, maintaining infrastructure and meeting consent and compliance requirements;
- A reduced need for involvement in water rationing by the Council, especially during periods of low flow; and
- Overall potential for greater economic and community prosperity.

Individual consent holders may choose to work together, so that they have the flexibility to meet day-to-day requirements from available water. Such arrangements could range from two individuals, to all water users and other interested parties within an area, working together.

Infrastructure is "fit for purpose" if it is working as it was designed to work, with no more than minor wastage of water.

Principal reasons for adopting
This policy is adopted to enable optimum benefit from the use of Otago's limited water resources and to support the development of infrastructure that will achieve this. This policy enables management of consents for taking and use by groups of water users.

<Cross references to be added>

Decisions: E1b, C1a, C1b, E1a, D2a

6.4.0C To promote and give preference to the use of water within the area it is taken from, over its use elsewhere.

Explanation

When considering a resource consent application to take and use water, matters which the Council may consider when determining whether the applied for source of water is the most appropriate given the proposed location of use, include:

- Local demands competing for that water, including whether essential local uses such as domestic, animal drinking, firefighting and community water supplies have adequate supply. If local demand is satisfied then water may be used elsewhere.
- Whether the take and use of that water is an efficient use of the water resource.
- Whether another source of water, including a water supply scheme, is available.
- The economic, social, environmental and cultural costs and benefits of taking from the water source applied for compared to taking water from other possible sources.

The Council may decline a consent application to take and use water from a specific source, if it considers taking from another source of water is possible and is a more efficient allocation of the water resource.

Principal reasons for adopting

This policy promotes the management of Otago's water resources in a way that makes water available for local use. It will assist in reducing demand in water-short areas by requiring larger water bodies with more reliable supply to be considered. This will ensure Otago's communities can provide for their social, cultural and economic wellbeing, now and for the future.

<Cross references to be added>

Decisions: B5a, B5b

Surface Water Takes and Connected Groundwater Takes

Decision: E1a

6.4.1 To enable the taking of surface water, by:

(a) ~~subject to defined~~ Defined allocation quantities; and

(b) ~~subject to provision~~ Provision for ~~the retention~~ water body levels and ~~of instream~~ flows~~.~~,

except when:

(i) The taking is from Lakes Dunstan, Hawea, Roxburgh, Wanaka or Wakatipu, or the main stem of the Clutha River/Mata-Au or Kawarau Rivers.

(ii) All of the surface water or connected groundwater taken is immediately returned to the source water body.

(iii) Water is being taken which has been delivered to the source water body for the purpose of that subsequent take.

Explanation

This policy enables the taking of surface water within specified limits ~~limitations upon the total amount taken from any river~~, and subject to suspension of takes when specified levels and flows for the water body ~~minimum flows~~ are reached.

~~The details are provided in~~ Primary allocation surface water takes are subject to the lowest minimum flows, supplementary allocation surface water takes are subject to higher minimum flows, and further supplementary allocation may be taken at flows greater than natural mean flow. Taking within the Plan's allocation limits and subject to the Plan's minimum flows is a restricted discretionary activity. ~~the following policies, incorporating:~~

- ~~The identification of a limited quantity of water, called the primary allocation, as specified in Policy 6.4.2;~~
- ~~Suspension of the taking of water within primary allocation, when flows fall below minimum flows specified:~~
  - ~~In Schedule 2 for particular catchments in terms of Policy 6.4.3; and~~
  - ~~On a case-by-case basis elsewhere in Otago in terms of Policy 6.4.4;~~
- ~~The application of minimum flows to existing takes in specified Schedule 2A catchments, as set out in Policy 6.4.5 (b) when the Plan becomes operative;~~
- ~~The progressive catchment by catchment application of minimum flows in the Manuherikia and central Taieri and other catchments as set out in Policy 6.4.5 (c) and (d);~~
- ~~Exceptions to the requirements of Schedule 2 where the provisions as specified in Policy 6.4.6 can be met;~~
- ~~A requirement to consider any need for a residual flow at the point of take, in addition to the minimum flow requirements above, through Policy 6.4.7;~~
- ~~An exemption from minimum flow requirements for Schedule 1B community water supply takes under Policy 6.4.8;~~
- ~~Supplementary allocation on a 50:50 flow sharing basis, or on a case-by-case basis where there are no significant adverse effects, as specified in Policy 6.4.9 (a) and (b); or as specified in Policy 6.4.9 (c) and Schedule 2B for the Kakanui catchment area.~~
- ~~Further supplementary allocation when flows are above the mean flow, in terms of Policy 6.4.10;~~
- ~~The suspension of takes when minimum flows have been reached, in terms of Policy 6.4.11;~~
- ~~The rationing of takes during periods of low flow by local water allocation committees or the Council as specified in Policies 6.4.12 and 6.4.13;~~

- ~~The taking of augmented flows free of minimum flow restrictions in terms of Policy 6.4.14; and~~
- ~~Various provisions regarding reasonable use requirements, the measurement of takes, transfers of permits to take, reallocation of unused primary allocation, the duration of permits, the matching of terms or conditions in catchments affected by deemed permits, and making consents subject to the exercise of other consents.~~

Allocation quantities and minimum flows set by policies in Chapter 6 do not apply to surface water takes from Lakes Dunstan. Hawea, Roxburgh, Wanaka or Wakatipu, or the main stem of the Clutha River/Mata-Au or Kawarau Rivers. They also do not apply to any take where all of the surface water or connected groundwater taken is immediately returned to the source water body. Takes from these seven water bodies and takes which are immediately returned are full discretionary activities in terms of this Plan, and quantities and minimum flows, where appropriate, are addressed through policies in Chapter 5.

Where water is delivered to a lake or river for the purpose of subsequent taking, it is not intended to have any effect on the quantities naturally present, so is excluded from allocation management under this policy. Such takes are restricted discretionary activities.

In the Waitaki catchment, all allocation must also be considered against the Waitaki Catchment Water Allocation Regional Plan (which is incorporated into policies of this Plan in Section 6.6A).

Principal reasons for adopting

This policy is adopted to enable ~~consumptive~~ users' access to surface water and connected groundwater while sustaining instream values.

<Cross references to be added>

Decisions: A3a, A3b, E1a, B11a, B1a, A2c, E1b

6.4.1A A groundwater take is allocated as:

(a) Surface water, subject to a minimum flow, if the take is from any aquifer in Schedule 2C; or

(b) Surface water, subject to a minimum flow, if the take is within 100 metres of any connected perennial surface water body; or

(c) Groundwater and part surface water if the take is 100 metres or more from any connected perennial surface water body, and depletes that water body most affected by at least 5 litres per second as determined by Schedule 5A; or

(d) Groundwater if (a), (b) and (c) do not apply.

Explanation

Most aquifers share a hydrological connection with adjoining surface water bodies. The degree of connection varies in significance, and this is reflected in the four ways of managing groundwater allocations.

(a) Schedule 2C
Surface water controls apply to takes from Schedule 2C aquifers because there is a close hydrological connection with the adjoining surface water bodies. These controls best manage the environmental effects of such takes.

(b) Take is within 100 metres
In some instances the degree of hydrological connection is sufficiently significant that a take of groundwater causes a depletion effect on surface water, as described in Schedule 5A. Therefore, surface water controls are imposed for groundwater takes that occur within 100 metres of a connected perennial surface water body because those takes have a direct effect on the surface water body.

(c) Take is from 100 metres or more, and depletes surface water by at least 5 litres per second
A dual water allocation regime applies under (c) if a groundwater take produces a surface water depletion of 5 litres per second or more. This regime recognises the effect of groundwater takes by allocating the full quantity of take against the aquifer allocation. It is important that the allocation is not allocated again to another groundwater taker.

This regime also recognises the effect of surface water depletion, which can occur immediately or time delayed, by allocating a portion of the take determined using the equations set out in Schedule 5A against the surface water allocation. Therefore, the quantity of water which depletes surface water must not be allocated again to any other water take (whether of surface water or groundwater).

Surface water minimum flow restrictions are not imposed under (c) because they would not immediately alleviate low surface water flow.

(d) All other groundwater
Certain factors reduce the connection between aquifer and surface water body to a degree that surface water depletion effects are below the threshold level of 5 litres per second. These typically include:
(i) The bed of the surface water body is impermeable; or
(ii) The surface water body is ephemeral and only conveys water in periods of high runoff; or
(iii) The groundwater is separated from the underlying water table by an unsaturated zone that inhibits connection to aquifer's water table; or
(iv) The groundwater system has very low permeability; or
(v) The groundwater system has very steep gradients or perched water tables adjacent to the surface water body boundaries; or
(vi) The bore or well screen is sufficiently deep to avoid influence on surface water; or
(vii) The bore or well is sufficiently distant from the surface water body to avoid influence on the surface water body.

In these instances water is allocated as groundwater only.

Principal reasons for adopting

This policy is adopted to ensure, when allocating groundwater, that the management is consistent with the management of surface water allocation, where the two resources are closely connected. The policy allows for the sustainable taking of groundwater while avoiding adverse effects, including in particular the matters listed in Policy 5.4.2 and 5.4.3.

<Cross references to be added>

Decisions: E1b, E1a, E1g

6.4.2 **To ~~limit~~ define the primary allocation limit for ~~the taking of surface water in any~~ each catchment, ~~through the identification of a quantity, known as *primary allocation*, which is~~ from which surface water takes and connected groundwater takes may be granted, as follows:**

(a) For catchments ~~areas~~ in Schedule 2A the greater of:

(i) ~~The primary allocation~~ That specified in Schedule 2A; or

(ii) The sum of consented maximum instantaneous or consented 7-day take of surface water at 28 February 1998 (or 19 February 2005 in Welcome Creek) and of connected groundwater at 10 April 2010, less any quantity in a consent where:

(1) ~~Any takes with~~ The consent has a minimum flow that was set higher than ~~those~~ that required by Schedule 2A.~~; and~~

(2) ~~Any takes that~~ All of the water taken is immediately returned ~~all of the take~~ to the source water body.~~; and~~

(3) All of the water being taken had been delivered to the source water body for the purpose of that subsequent take.

~~(3)~~(4) ~~Any consents surrendered, lapsed, cancelled or not replaced on expiry after 28 February 1998.~~ The consent has been surrendered or has expired (except for the quantity granted to the existing consent holder in a new consent).

(5) The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5)).

(6) The consent has lapsed.

(b) For catchments ~~areas~~ other than those in Schedule 2A the greater of:

(i) 50% of the 7-day mean annual low flow; or

(ii) The sum of consented maximum instantaneous or consented 7-day take of surface water at 28 February 1998 (or 19 February 2005 in Welcome Creek) and of connected groundwater at 10 April 2010, less any quantity in a consent where:

(1) ~~Any takes that~~ All of the water taken is immediately returned ~~all of the take~~ to the source water body.~~; and~~

(2) All of the water being taken had been delivered to the source water body for the purpose of that subsequent take.

~~(2)~~(3) ~~Any consents surrendered, lapsed, cancelled or not replaced on expiry after 28 February 1998.~~ The consent has been surrendered or has expired (except for the quantity granted to the existing consent holder in a new consent).

(4) The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5)).

(5) The consent has lapsed.

Explanation

This policy sets a limit for primary allocation for the taking of surface water and connected groundwater (as defined by Policy 6.4.1A(a), (b) and (c)).

~~The primary allocation limits are:~~

- ~~Set in Schedule 2A for the specified catchment areas; and~~
- ~~50% of the 7-day mean annual low flow (50% MALF) for all other catchment areas.~~

~~However, if existing consented (maximum instantaneous rate or 7-day rate) takes at the date of notification of the Plan (28 February 1998) exceeded these allocation limits, then the primary allocation is the volume of these existing takes. This provides for the existing needs for Otago's communities.~~

The consented 7-day take is ~~the total weekly quantity of water allocated through resource consents at 28 February 1998, including deemed permits,~~ calculated using the process outlined in Method 15.8.1.1. In cases where the consented maximum instantaneous take is markedly higher than the 7-day take, the consented maximum instantaneous take will be used. ~~Before issuing a consent for any new take, it is necessary to establish whether the existing quantity taken from the catchment exceeds the primary allocation specified in Schedule 2A or 50% MALF in the case of unscheduled catchments.~~ Once ~~50% MALF is~~ calculated by the ~~Regional~~ Council ~~for a catchment, that value becomes fixed in terms of this policy~~ the value of 50% of the 7-day mean annual low flow is fixed for a catchment.

~~Consents that have been granted subject to a higher minimum flow than is set in Schedule 2A, and takes that immediately return all the water taken to the source water body, are not part of the primary allocation.~~

Primary allocation is available when:

(a) For catchments in Schedule 2A;

(i) If the sum of quantities consented in takes is less than the primary allocation limit set ~~specified~~ in Schedule 2A, water can be

allocated as primary allocation under this policy until ~~that~~ the Schedule 2A limit is reached; or

(ii) If the sum of quantities in consented takes ~~at 28 February 1998 exceeded~~ exceeds the primary allocation limit set ~~specified~~ in Schedule 2A, no further primary allocation is available ~~and no new primary allocation consents will be granted.~~ until the sum is less than the Schedule 2A limit. ~~The primary allocation will reduce if any permits are surrendered, lapse, are cancelled, or not replaced on expiry.~~ Primary allocation for the catchment is fully allocated, and a new quantity from within primary allocation may only be granted to a new consent subject to the surrender or expiry of an existing consent, or by transfer from an existing consent under Section 136(5). More detail is given below for when a consent is due to expire.

(iii) Any further allocation, known as supplementary allocation, must then be considered under Policies 6.4.9 or 6.4.10.

(b) For catchments other than those in Schedule 2A;

(i) If the consented take is less than 50% of the 7-day mean annual low flow, more water can be allocated as primary allocation under this policy until that limit is reached.

(ii) If the ~~consented take quantity as at 28 February 1998 exceeded~~ sum of quantities in consented takes exceeds 50% MALF, no further primary allocation is available ~~and no new primary allocation consents will be granted.~~ until the sum is less than 50% MALF. ~~The primary allocation will reduce if any permits are surrendered, lapse, are cancelled, or not replaced on expiry.~~ Primary allocation for the catchment is fully allocated, and a new quantity from within primary allocation may only be granted to a new consent subject to the surrender or expiry of an existing consent, or by transfer from an existing consent under Section 136(5). More detail is given below for when a consent is due to expire.

(iii) Any further allocation, known as supplementary allocation, must then be considered under Policies 6.4.9 or 6.4.10.

~~Where a consent to replace an existing consent is not applied for within the time frames set in Section 124 of the Resource Management Act, that water take will lose its primary allocation status. The allocation previously provided to that former consent will not be reallocated as primary allocation on any subsequent consent application where the catchment primary allocation exceeds the limits under (a)(i) or (b)(i) of this policy.~~

When the holder of an existing consent with primary allocation applies for a new consent for the same activity, and is able to lawfully exercise the consent beyond the consent's expiry under Section 124, that quantity of water retains its primary allocation status and may be granted to the new consent. Otherwise, if it is not replaced immediately on expiry, taking must cease when the consent expires and primary allocation status is lost.

In catchments where (a)(ii) or (b)(ii) applies, that quantity is subtracted from the sum of primary allocation consents and may not be re-allocated.

Note that where the quantity from an existing consent from within primary allocation is transferred to a new consent, calculation of the primary allocation in (a)(ii) and (b)(ii) is based on the quantity specified in the new consent.

The catchments used in terms of calculating allocation under this policy are based on the point at which each catchment enters the Clutha/Mata-Au or Kawarau main stems, Lakes Roxburgh, Dunstan, Hawea, Wanaka or Wakatipu, or the coastal marine area. An alternative upstream point may be used where practicable, having regard to the hydrological characteristics of that catchment. Allocation limits will not apply in terms of any surface water or connected groundwater take from the main stem of the Clutha/Mata-Au or Kawarau Rivers nor do the subsequent policies set minimum flows for these rivers but the provisions of Chapter 5 apply.

The Otago Regional Council will keep a record of the quantity of water allocated from each catchment, and the value of 50% of the 7-day mean annual low flow when it is fixed for a catchment.

Principal reasons for adopting
This policy is adopted, in conjunction with the application of minimum flows, for catchments identified in Schedule 2A, to provide certainty regarding the availability of water resources for taking, while ensuring the effects of takes on the life-supporting capacity for aquatic ecosystems and natural character of rivers are no more than minor. This policy also provides a conservative primary allocation for unscheduled catchments until studies can determine the appropriate allocation limits. However, these catchments are not identified in Schedule 2A, and they do not have minimum flows specified in the Plan.

This policy, along with Policies 6.4.2A and 6.4.2AA, are intended to reduce unutilised consented primary allocation over time, which will enable lowering of supplementary minimum flows.

Rules: 12.1.4.2 to 12.1.5.1, 12.2.3.1
Other methods: 15.8.1.1

Decisions: A2a, A3c, A3f, B10a

6.4.2A Where an application is received to take water from within primary allocation and Policy 6.4.2(a)(ii) or (b)(ii) applies to the catchment, to grant no more water than has been taken under the existing consent in the preceding five years, except in the case of a registered community drinking water supply where an allowance may be made for growth that is reasonably anticipated.

Explanation
This policy intends that in catchments where water is only available from primary allocation under a new consent for the same activity for which an existing primary allocation consent is held, only water actually taken under that existing resource consent will be considered for the new consent.

In the new consent, a consent holder may benefit from using water actually taken in the past more efficiently.

A registered community drinking water supply, in terms of this Policy, is a drinking water supply serving a community of more than 25 people for more than 60 days a year. In the case of such supplies, consent may be granted for more water than has been taken under the existing consent where there is evidence that growth is reasonably anticipated.

In all cases, the effect of seasonal extremes will be considered.

Evidence of the rate, volume, timing and frequency of water taken under the existing consent in the preceding five years is required, such as metering or measuring data. Where there is limited or no such data available, any relevant supporting evidence may be presented, for example a description of existing circumstances and use. Infrastructure present or photography showing irrigated land may also indicate how much water has been taken and when.

Principal reasons for adopting
This policy is adopted to assist in the reduction of primary allocation to reflect the amount of water actually being taken. This policy also intends that the taking of water is not constrained by resource consent holders who are underutilising the water allocated to them, improving efficiency of water resource use.

This policy, along with Policies 6.4.2 and 6.4.2AA, are intended to reduce unutilised consented primary allocation over time, which will enable lowering of supplementary minimum flows.

<Cross references to be added>

Decisions: A3g, B6c, B4d, B2a, A3f

6.4.2AA Where Policy 6.4.2A applies and, under the existing consent, water was usually taken at flows above the minimum flow calculated for the first supplementary allocation block for that catchment, to consider granting the new resource consent to take water as supplementary allocation.

Explanation
Some existing resource consents to take water within primary allocation are being exercised only at higher flows, as if the consents are to take water within supplementary allocation. This happens where it is not

possible to take water at flows below the minimum flow for the first supplementary block for the catchment because there is no water available.

It is intended through this policy that, where a new consent is granted as supplementary allocation, the consent holder will continue to be provided with water equivalent to that taken in the past. Water taken at higher flows can be stored for later use.

Principal reasons for adopting
This policy is adopted to assist in the reduction of primary allocation by requiring consideration of the status of water infrequently taken, as supplementary allocation. This policy intends that the taking of water is not constrained by resource consent holders who are underutilising the water allocated to them, improving the efficiency of water resource use.

This policy, along with Policies 6.4.2 and 6.4.2A, are intended to reduce unutilised consented primary allocation over time, which will enable lowering of supplementary minimum flows.

<Cross references to be added>

Decisions: A3f, A3h

6.4.3 For catchments identified in Schedule 2A, except as provided for by Policy 6.4.8, minimum flows are set for the purpose of restricting *primary allocation* takes of water.

Explanation
This policy sets specific minimum flows, as identified in Schedule 2A for specified catchments, for the taking of water that is within the primary allocation in terms of Policy 6.4.2.

The taking of primary allocation water is a restricted discretionary activity under Rules 12.1.4.2 to 12.1.4.4 provided the minimum flows in Schedule 2A are applied. Policy 6.4.6 provides an alternative to applying Schedule 2A minimum flows as a full discretionary activity under Rule 12.1.5.1. An exemption for Schedule 1B community water supply takes is provided for in Policy 6.4.8. A residual flow may be required under Policy 6.4.7 in addition to a minimum flow applied under this Policy where the take is a Schedule 1B community supply or where the take is from a tributary of a river for which a minimum flow is set in Schedule 2A.

These provisions apply where flow-monitoring facilities are in place. Schedule 2A may be amended, such as by the addition of further rivers, through plan changes as appropriate, as minimum flows are set after investigations.

Principal reasons for adopting
This policy is adopted to enable the taking of water while providing for instream values where there are monitoring facilities present and sufficient

flow information available to enable the inclusion of affected rivers on Schedule 2A. The minimum flows established provide for the maintenance of aquatic ecosystems and natural character under low flow conditions. The Shag River minimum flow at Goodwood has been set for the protection of community water supply.

Rules: 12.1.4.2 to 12.1.5.1
Other methods: 15.8.2.1, 15.8.2.2

6.4.4 For existing takes outside Schedule 2A catchments, minimum flows, for the purpose of restricting *primary allocation* takes of water, will be determined after investigations have established the appropriate minimum flows in accordance with Method 15.9.1.3. The new minimum flows will be added to Schedule 2A by a plan change and subsequently will be applied to existing takes in accordance with Policy 6.4.5(d).

For new takes in a catchment outside Schedule 2A, until the minimum flow has been set by a plan change, the minimum flow conditions of any primary allocation consents will provide for the maintenance of aquatic ecosystems and the natural character of the source water body.

Explanation
This policy provides for setting of minimum flows for catchments outside Schedule 2A, for restricting the taking of water that is within the primary allocation in terms of Policy 6.4.2.

For existing takes (as defined by Rule 12.1.4.5(i)) the minimum flows will be set after investigations have determined the appropriate minimum flow and that minimum flow has been added to Schedule 2A by a plan change.

For new takes, within the primary allocation set in Policy 6.4.2(b)(i), minimum flows are to be set on a case-by-case basis recognising the water use needs of the community while providing for the aquatic ecosystems and natural character of the water bodies of the catchment. Consents will be subject to a review clause to enable the new minimum flow that is added to Schedule 2A, to be applied.

This policy combined with Policy 6.4.5(d) provides for consents that replace existing primary allocation takes to be granted without a minimum flow until a plan change establishes the minimum flow for that catchment area. Such consents will be subject to a review clause to enable the new minimum flow that is added to Schedule 2A, to be applied.

Monitoring arrangements will be made on a case-by-case basis in accordance with Method 15.8.2.2. River flows are to be measured at the catchment's discharge point, or as close as practicable upstream of that point having regard to any physical constraints. Where direct monitoring of flows is impracticable, flow recorder sites on other rivers may be used.

Schedule 1B community water supply takes within the primary allocation are exempt from these minimum flow requirements as provided for by Policy 6.4.8. A residual flow may also be applied under Policy 6.4.7.

Principal reasons for adopting
This policy is adopted to enable the taking of water from outside Schedule 2A areas while providing for the maintenance of aquatic ecosystems and natural character.

See also: Policy 7.7.5
Rules: 12.1.4.2 to 12.1.5.1
Other methods: 15.8.2.1, 15.8.2.2, 15.9.1.3, 15.9.1.4

6.4.5 The minimum flows established by Policies 6.4.3, 6.4.4, 6.4.6, 6.4.9 and 6.4.10 will apply to resource consents for the taking of water, as follows:

(a) In the case of new takes applied for after 28 February 1998, upon granting of the consent; and

(b) In the case of any resource consent to take ~~surface~~ water from within the Taieri above Paerau and between Sutton and Outram, Welcome Creek, Shag, Kakanui, Water of Leith, Lake Hayes, Waitahuna, Trotters, Waianakarua and Lake Tuakitoto catchment areas as defined in Schedule 2A, subject to the review of consent conditions under Sections 128 to 132 of the Resource Management Act; and

(c) In the case of any existing resource consent to take ~~surface~~ water from the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and the Taieri catchment areas Paerau to Waipiata and Waipiata to Sutton, as defined in Schedule 2A, upon collective review of consent conditions within those catchments under Sections 128 to 132 of the Resource Management Act; and

(d) In the case of any existing resource consent to take ~~surface~~ water within a catchment area not specified in Schedule 2A, upon the establishment of a minimum flow set for the water body by a plan change, subject to the review of consent conditions under Sections 128 to 132 of the Resource Management Act.

Explanation
This policy provides for the application of minimum flows to consents as follows:

1. New takes are subject to minimum flow provisions when the consent is granted.
2. For resource consents to take from rivers within catchments specified in Schedule 2A, except for the Luggate, Manuherikia (upstream of Ophir) and the Taieri between Paerau and Waipiata, and between Waipiata and Sutton, the minimum flow provisions apply, subject to the review of consent conditions under Sections 128 to 132 of the RMA.

3. For the Luggate, Manuherikia (upstream of Ophir) and the Taieri between Paerau and Waipiata, and between Waipiata and Sutton, the minimum flows will not apply until after a collective review of the consents in the catchments. This will occur before 2021 if there is agreement by the holders of mining privileges (deemed permits) to adhere to the minimum flows, or on the expiry of the mining privileges on 2 October 2021. Where environmental benefit will result from applying minimum flows to any resource consents (other than deemed permits) in these catchments, the review of those resource consent conditions may also occur earlier.
4. For resource consents to take from rivers within catchments not specified in Schedule 2A, the minimum flow provisions will apply from the operative date of a plan change setting the minimum flow for the river, subject to the review of consent conditions under Sections 128 to 132 of the RMA.

Reviews under Section 128 of the Resource Management Act will be undertaken simultaneously on all reviewable takes within each catchment, in the interests of equity.

In the case of mining privileges in respect of water (deemed permits, see Appendix 2) the Resource Management Act provides for their continuation without restriction, unless compensation is made, until they expire in 2021. However, arrangements for the conversion of such permits to resource consents may be developed before that time. Alternatively, arrangements for voluntary adherence by deemed permit holders to the minimum flows may occur. Under voluntary arrangements, or conversion of deemed permits to resource consents, or in 2021, these resource consents or deemed permits will become subject to the minimum flows established by this Plan.

The process of consent review must be completed by 2 October 2021, allowing coordination with the review of any deemed permits that may be operating in an area.

Principal reasons for adopting
This policy is adopted to enable the minimum flow provisions of the Plan to be applied as soon as practicable to existing resource consents to take water.

In the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas between Paerau and Waipiata, and between Waipiata and Sutton, there is a very high proportion of mining privileges. Therefore the application of minimum flows to resource consents may be timed to coincide with their application to deemed permits (either through voluntary methods or in 2021). Where environmental benefit will result from applying minimum flows to any resource consents (other than deemed permits) in these catchments, the review of those resource consent conditions may also occur earlier.

In unscheduled catchments the minimum flows, once established and set by a plan change, will be applied to the reviewable consents in those catchments.

This will ensure that restricting water takes will result in actual environmental benefits.

Rules: 12.1.4.2 to 12.1.5.1, 12.2.3.1
Other methods: 15.9.1.3, 15.9.1.4

Decisions: B10a, E1b

6.4.6 To consider granting an application for a resource consent to take water from a Schedule 2A river, within primary allocation, subject to a minimum flow lower than that specified in Schedule 2A, on a case-by-case basis, provided:

(a) The take has no measurable effect on the flow at any Schedule 2A monitoring site at flows at or below the minimum flow applying to the primary allocation; and
(b) Any adverse effect on any aquatic ecosystem value or natural character of the source water body is no more than minor; and
(c) There is no adverse effect on any lawful existing take of water.

Explanation
This policy provides criteria for the granting of consents to take water as exceptions to the requirements of Policy 6.4.3. Such takes are full discretionary activities in terms of the rules of this Plan.

The application to take may not be granted if it has more than a minor adverse effect on any aquatic ecosystem value or on natural character, or any adverse effect on another lawful take.

Principal reasons for adopting
This policy is adopted to enable consideration of applications for the taking of water as exceptions to the requirements of Policy 6.4.3 where such a take will have no more than a minor effect.

See also: Policy 7.7.5
Rules: 12.1.5.1

6.4.7 The need to maintain a residual flow at the point of take will be considered with respect to any take of water, in order to provide for the aquatic ecosystem and natural character of the source water body.

Explanation
This policy requires an assessment of whether there is any need to apply a condition on any consent to take water requiring the passing of a residual flow at the point of take. Such a residual flow condition may be applied in addition to a minimum flow applied under this Plan.

A residual flow condition may be applied to any take for community water supply purposes, or on a take from a tributary stream that has different flow characteristics from the main stem.

Residual flows will be applied and monitoring arrangements made on a case-by-case basis having regard to any effects on aquatic ecosystem values and the natural character of the source water body.

Principal reasons for adopting
This policy is adopted to enable the taking of water while providing for instream values of the source water body, particularly with respect to community water supplies and takes from tributaries that have different flow characteristics from the main stem under low flow conditions.

See also: Policy 7.7.5
Rules: 12.1.3.1, 12.1.4.2 to 12.1.5.1

6.4.8 Minimum flows required by Policies 6.4.3, 6.4.4 or 6.4.6 will not apply to community water supply takes identified in Schedule 1B.

Explanation
Under low flow conditions, priority is given to protecting takes for community water supply in primary allocation. This policy exempts scheduled community water supplies from restriction in terms of the minimum flow requirements of Policies 6.4.3, 6.4.4 and 6.4.6. The requirement under Policy 6.4.7 to consider the need for a residual flow at the point of take does apply to these community water supplies, having regard also to the need to provide for human health and safety. Existing residual flow conditions may be confirmed or reviewed through the application of this Plan.

Community water supply takes beyond the primary allocation will be subject to Policy 6.4.9 or 6.4.10 and will need to be designed to maintain aquatic ecosystem values, while ensuring sufficient supply under low flow conditions so that human health and safety are not compromised. Section 14(3)(b) of the Resource Management Act provides for the unrestricted taking of water for an individual's reasonable domestic needs, provided the taking does not, or is unlikely to, have an adverse effect on the environment.

Principal reasons for adopting
This policy is adopted to enable continued unrestricted operation of Schedule 1B community water supplies. Human health and safety are dependent on a reasonable supply of water and imposing minimum flows on existing takes may compromise human health and safety unnecessarily. In many instances the community has made a considerable investment in developing infrastructure to supply water, and has undertaken significant development that is dependent on the water supply.

Consideration of any need for a residual flow at the point of take may be needed in some instances to provide for specific values of the source water body.

Rules: 12.1.3.1

6.4.9 To provide for supplementary allocation for the taking of water, in blocks of allocation where that is appropriate:

(a) Such that up to 50% of flow at the catchment main stem, minus the assessed actual take, is available for allocation subject to a minimum flow set to ensure that no less than 50% of the natural flow remains instream; or

(b) On an alternative basis, provided:

(i) The take has no measurable effect on the flow at any Schedule 2 monitoring site, or any site established in terms of Policy 6.4.4, at flows at or below any minimum flow applying to primary allocation; and

(ii) Any adverse effect on any aquatic ecosystem value or natural character of the source water body is no more than minor; and

(iii) There is no adverse effect on any lawful existing take of water.

(c) ~~The first supplementary~~ Supplementary allocations and associated minimum flows for ~~the Kakanui River~~ some catchments are set in Schedule 2B.

Explanation

Policy 6.4.2 provides for the taking of water as primary allocation. This policy provides for the taking of water as supplementary allocation ~~for the taking of water~~ on a 50:50 flow-sharing basis between instream and out of stream use. Fifty percent of available flow may be allocated, minus the assessed actual take, which is that volume of water in primary allocation that is actually being taken, as calculated under Method 15.8.1.1. Further supplementary allocation, where taking occurs above the river's natural mean flow, is provided through Policy 6.4.10.

In providing for supplementary allocation where there are multiple applications for new takes of water these may be granted in allocation blocks. These blocks are volumes of water, assessed as the consented maximum instantaneous rates of take. Under Method 15.8.1A.1, the size of any supplementary allocation block is based on the 7-day mean annual low flow of the catchment. ~~Schedule 2B establishes the first supplementary allocations and associated minimum flows for the Kakanui River.~~

The formula for calculating the supplementary minimum flows is as follows:

Supplementary minimum flow = Assessed actual take + Supplementary allocation(s)

The 50:50 flow-sharing applies only to supplementary allocation determined under (a) of this policy. There may be a situation where the assessed actual take under part (a) is not able to be determined, due to factors including takes not being monitored. Until such time that assessed

actual take can be calculated, this policy provides for the use of primary allocation in place of assessed actual take, in terms of Method 15.8.1A.2.

The consent will be immediately subject to the minimum flow. Such supplementary allocation takes are a restricted discretionary activity.

~~Supplementary allocation takes that leave no less than 50% of the flow instream, or are specified in Schedule 2B for the Kakanui River, are a restricted discretionary activity under Rule 12.1.4.3.~~

Supplementary allocation may be made on an alternative basis, as an exception to 6.4.9(a), as long as aquatic ecosystem values, natural character and existing users downstream of the take are not adversely affected. Supplementary allocation takes that leave less than 50% of the flow instream~~, or are in addition to the first supplementary allocations specified in Schedule 2B for the Kakanui,~~ will be considered as a full discretionary activity ~~under Rule 12.1.5.1~~ or, for the Waitaki Catchment only, a non-complying activity in terms of this Plan. ~~When setting minimum flows and monitoring arrangements on this basis, the provisions of Policy 5.4.2 as they apply to aquatic ecosystems and natural character will be had regard to.~~

Schedule 2B sets blocks for supplementary allocation for some catchments.

Principal reasons for adopting
This policy is adopted to enable access to water at moderate flows, while maintaining the aquatic ecosystem and natural character values of affected rivers, and providing for natural flow variation. It also provides for a lower minimum flow to be applied, where adverse effects will be no more than minor.

See also: Policy 7.7.5, in relation to (b) of this Policy
Rules: 12.1.4.2 to 12.1.5.1

Decisions: E1b, B10b

6.4.10 In addition to Policy 6.4.9, to provide for further supplementary allocation without any restriction on the volume taken, where the minimum flow applied is equal to the natural mean flow.

Explanation
This policy provides for further supplementary allocation than that which is provided for by Policy 6.4.9, when flows are above the natural mean flow. At such times, water is sufficiently abundant so that taking will have no more than minor effect on instream values or other takes.

This allocation is likely to be sought by those storing water. Where such takes are subject to a minimum flow equal to the natural mean flow, limiting the allocation is unnecessary. Rule 12.1.4.7 makes such takes a restricted discretionary activity. However, further supplementary takes ~~in the Kakanui~~

~~catchment~~ are full discretionary activities under Rule 12.1.5.1 because of the provision of the first supplementary allocations in Schedule 2B and the potential effects of further supplementary takes on flow variability and instream values.

Principal reasons for adopting
This policy is adopted to provide access to water at higher flows and promote water harvesting, when the maintenance of the aquatic ecosystem and natural character values of affected rivers is not an issue.

Rules: 12.1.4.7 to 12.1.5.1

Decision: E1h

Groundwater Takes

6.4.10A To enable the taking of groundwater by:

(a) In each aquifer other than any in Schedule 2C or within 100 metres of a connected perennial surface water body, defining a quantity known as the *maximum allocation volume*, which is:

(i) For aquifers in Schedule 4A, the greater of:

(1) A limit specified as the maximum allocation volume in Schedule 4A; or

(2) The sum of consented maximum annual take for that aquifer at 10 April 2010, less any quantity in a consent where:

(A) All of the water taken is immediately returned to the aquifer or connected surface water body;

(B) The consent has been surrendered or has expired (except where the quantity has been granted to the existing consent holder as a new consent;

(C) The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5));

(D) The consent has lapsed;

(ii) For aquifers other than those in Schedule 4A, the greater of:

(1) A limit which is 50% of the calculated mean annual recharge; or

(2) The sum of consented maximum annual take for that aquifer at 10 April 2010, less any quantity in a consent where:

(A) All of the water taken is immediately returned to the aquifer or connected surface water body;

(B) The consent has been surrendered or has expired (except where the quantity has been granted to the existing consent holder as a new consent;

(C) The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5));

(D) The consent has lapsed; and

(b) In an aquifer other than any in Schedule 2C or within 100 metres of a connected perennial surface water body, applying aquifer restriction levels where specified in Schedule 4B; and
(c) In any aquifer, avoiding contamination of groundwater or surface water; and
(d) In any aquifer, avoiding permanent aquifer compression.

Explanation
Policy 6.4.1A(a) and (b) provide for the management of connected groundwater as if it were surface water. All water allocated as groundwater in terms of Policy 6.4.1A(c) or (d) needs to be managed for the protection of aquifers and the maintenance of any long term outflows. The outflows from any aquifer need to be maintained to prevent long term depletion of base flow to surface water bodies and prevent seawater intrusion.

Sustainable allocation of groundwater will be achieved by considering as restricted discretionary activities, those applications where:
(i) The individual take would not cause the cumulative take from the aquifer to exceed 50% of the mean annual recharge of the aquifer, or the maximum allocation volume listed in Schedule 4A, unless that take was the subject of a resource consent granted before 10 April 2010; and
(ii) Relevant aquifer restriction levels are met; and
(iii) Aquifer contamination or compression will be avoided.

For some aquifers identified in Maps C1–C17, maximum allocation volumes are specified in Schedule 4A, where there is sufficient information to set them. Maximum allocation volumes are appropriate for managing the cumulative effects of groundwater takes on long term storage of an aquifer and on outflows to surface water bodies. Significant drawdown effects are addressed under (b) of this policy.

Allocation is available when the consented maximum take is below the limits specified in (a)(i)(1) or (a)(ii)(1) of this policy. Where the consented maximum annual take reduces below those limits, through surrender, lapse, cancellation or non-replacement on expiry of existing consents, new quantities may be granted.

When an existing consent holder applies for a new consent for the same activity, and is able to continue to lawfully exercise the consent under Section 124, that quantity of water retains its status within maximum allocation volume and may be granted to the new consent. Only where the application is approved does the quantity remain within maximum allocation volume.

Note that where the quantity from an existing consent within maximum allocation volume is transferred to a new consent, calculation of the maximum allocation volume in (a)(i)(2) and (a)(ii)(2) of this policy is based on the quantity specified in the new consent.

When the aquifer levels specified in Schedule 4B are reached, the actual taking of water will be restricted as provided for in the Schedule. Restrictions will apply to all consents to take groundwater under Policy 6.4.1A(c) or (d), including those for community water supply specified in Schedule 3B, as well as permitted taking in accordance with Rule 12.2.2.2. Maps D1–D4 show the Schedule 4B aquifers to which the restrictions apply.

When considering the taking of any groundwater, the adverse effects identified in (c) and (d) of this policy must be avoided.

Principal reasons for adopting

This policy is adopted to ensure that potentially long term or irreversible adverse effects on aquifer properties resulting from taking groundwater are avoided. It is important to achieve this outcome in order to provide for the needs of Otago's present and future generations.

This policy also maintains levels and pressures within identified aquifers. This will assist in achieving the environmental results detailed in Schedule 4B, by avoiding significant reductions.

This policy allows for sustainable taking of groundwater from aquifers, where the take will not have a direct effect on any surface water body, while avoiding adverse effects, including in particular the matters listed in Policies 5.4.2 and 5.4.3. Allocating no more than the limits in the policy ensures the remaining groundwater provides for adequate levels of system outflow.

<Cross references to be added>

Decisions: A5e, A5a, A5c, E1a, A5b

6.4.10AA Where an application is received to take groundwater within the maximum allocation volume and Policy 6.4.10A(a)(i)(2) or (a)(ii)(2) applies to the aquifer, to grant no more water than has been taken under the existing consent, except in the case of a registered community drinking water supply where an allowance may be made for growth that is reasonably anticipated.

Explanation

This policy intends that in aquifers where water is only available from within the maximum allocation volume under a new consent for the same activity for which an existing consent is held, only water actually taken under that existing resource consent will be considered for the new consent.

In the new consent, a consent holder may benefit from using water actually taken in the past more efficiently.

A registered community drinking water supply, in terms of this Policy, is a drinking water supply serving a community of more than 25 people for more than 60 days a year. In the case of such supplies, consent may be granted for more water than has been taken under the existing consent where there is evidence that growth is reasonably anticipated.

In all cases, the effect of seasonal extremes will be considered.

Evidence of the rate, volume, timing and frequency of water taken under the existing consent is required, such as metering or measuring data. Where there is limited or no such data available, any relevant supporting evidence may be presented, for example a description of existing circumstances and use. Infrastructure present or photography showing irrigated land may also indicate how much water has been taken and when.

Principal reasons for adopting

This policy is adopted to assist in the reduction of the maximum allocation volume under Policies 6.4.10A(a)(i)(2) or 6.4.10A(a)(ii)(2) to reflect the amount of water actually being taken. This policy also intends that the taking of groundwater is not constrained by resource consent holders who are underutilising the groundwater allocated to them, improving efficiency of water resource use.

<Cross references to be added>

Decision: A5d

6.4.10B *[From 9.4.7]* **In managing the taking of groundwater, to have regard to avoiding adverse effects on existing groundwater takes, unless the approval of affected persons has been obtained.**

Explanation

This policy recognises that the taking of groundwater from any aquifer can result in bore interference. Bore interference relates to the temporarily reduced ability of users in a localised area to take water due to the taking of water from another bore reducing the pressure or the level of groundwater. When considering the taking of groundwater, regard will be had to avoiding adverse effects on existing takes. Conditions on a resource consent to take groundwater may include limits on the instantaneous take of groundwater from the bore, in order to maintain existing access to water in neighbouring bores. Schedule 5 identifies formulae that will be applied in order to determine the acceptable level of bore interference.

Principal reasons for adopting

This policy is adopted to maintain, as far as possible, the availability of groundwater at existing bores. This will assist to avoid the potential for conflict among those taking groundwater.

<Cross references to be added>

6.4.10C *[From 9.4.14]* **To require appropriate siting, construction and operation of new groundwater bores, to~~:~~**

~~**(a) Contaminants from entering an aquifer;**~~

~~**(b) The contamination of groundwater in any aquifer from the groundwater in another aquifer;**~~

~~**(c) The loss of pressure or water wastage**~~

maintain artesian pressure in confined ~~artesian~~ aquifer conditions~~;~~ and~~,~~ to promote such management for existing bores.

Explanation

Bores may be located, constructed or operated in ~~such~~ a manner that allows ~~contaminants to enter groundwater, or~~ loss of pressure in confined artesian conditions. Confined artesian aquifer conditions occur where the pressure of water in an aquifer, beneath an impermeable or semi-permeable layer, results in water level rise above the bottom of that confining layer. ~~For~~ Therefore, new bores~~, the opportunity exists to avoid such adverse effects by requiring:~~ must be adequately sealed to maintain artesian pressure.

- ~~Their siting in an area where runoff cannot enter them; or~~
- ~~Bunding, so that runoff or accidental spills cannot enter them; and~~
- ~~Bore casings which prevent movement of poor quality water between aquifers; and~~
- ~~Adequate sealing so that there is no loss of artesian pressure.~~

The opportunity to upgrade existing bores that allow loss of artesian pressure ~~to meet these same standards~~ will be taken through promotion programmes.

Principal reasons for adopting

This policy is adopted to ensure that bores are sited, constructed and operated in a manner that generally maintains ~~the water quality and~~ pressures within an aquifer~~. This is important~~ so that the aquifer can support present and future uses ~~can be supported by the aquifer. Appropriate measures can be required through a condition on a resource consent for any new bore, while promotion will be most effective in achieving these standards with existing bores.~~ It is also adopted to avoid localised adverse effects on other groundwater users.

<Cross references to be added>

Decisions: B12a, E1b

6.4.10D *[From 9.4.15]* **To require that new bores in the Papakaio and Lower Taieri Aquifers are constructed of materials suitable to resist corrosion and in a manner that enables their complete shutdown.**

Explanation

This policy establishes requirements for the construction of bores within the Papakaio and Lower Taieri Aquifers. These requirements will enable bores to have an adequate working life, minimise water quality problems associated with corrosion, and control expected artesian conditions.

Construction of new bores in these aquifers will require appropriate equipment and expertise. Map C15 shows the location of the Lower Taieri Aquifer. Map D1 shows the Papakaio Aquifer.

Principal reasons for adopting
This policy is adopted to ensure that the construction of bores within the Papakaio and Lower Taieri Aquifers is appropriate for the aquifer conditions. This will protect the supply of water from these aquifers through maintaining both the pressure and the quality of the water as it is delivered by the bore.

<Cross references to be added>

6.4.10E *[From 9.4.16]* **Unless provision has been made to permanently decommission and seal the bore, to require the structural condition and control mechanisms of all existing bores in the Papakaio and Lower Taieri Aquifers to be certified as being secure against uncontrolled artesian discharge at no more than 5 year intervals.**

Explanation
This policy establishes the need to monitor existing bores within the Papakaio and Lower Taieri Aquifers to ensure that they are in sound working order, due to pressure in the aquifer and the corrosive nature of the water. The condition of the bore is considered secure when it is able to resist corrosion and be completely shut down. Map C15 shows the location of the Lower Taieri Aquifer. Map D1 shows the Papakaio Aquifer.

Principal reasons for adopting
This policy is adopted to ensure that there is the facility to safely and effectively control the pressures experienced in the Papakaio and Lower Taieri Aquifers. Such measures will enable compliance with other requirements of this Plan

<Cross references to be added>

All Water Takes

6.4.11 *[Also from 9.4.6]* **To provide for the suspension of the taking of water at the minimum flows and aquifer restriction levels set under this Plan.**

Explanation
When the flow in any river is at or below that minimum flow set by rules or consent conditions under this Plan, all takes that are subject to that minimum flow shall cease taking. This applies where there is an automatic flow recorder that can be accessed by the ~~Otago Regional~~ Council's "Water Info" telephone service. Where no access to low flow information is available directly by that telephone service, then the ~~Otago Regional~~ Council will notify resource consent holders by public notice, or other appropriate means, that taking must cease until further notice.

When the aquifer restriction levels identified in Schedule 4B have been reached, ~~the relevant resource consents for the taking of groundwater will be suspended~~ all takes that are subject to that restriction level shall cease taking. The levels are monitored from monitoring bores, identified in Maps D1 – D4. The ~~Otago Regional~~ Council will notify those taking groundwater under ~~resource~~ consents that are subject to any restriction under this Plan, of the requirement to suspend taking when the level is at or below those identified in Schedule 4B.

The ~~Otago Regional~~ Council may, by public notice, also suspend the taking of water under permitted activity Rules 12.1.2.4, ~~and~~ 12.1.2.5, 12.2.2.2, 12.2.2.5 and 12.2.2.6 at such times.

Principal reasons for adopting
This policy is adopted to ensure that holders of resource consents for the taking of water will cease taking water at the specified minimum flows, in order to provide for the maintenance of aquatic ecosystems and natural character under low flow conditions in Otago's rivers.

This policy ~~is adopted to indicate when resource consents for~~ also ensures the taking of groundwater will be suspended in order to protect ~~the aquifer yield~~ aquifers and ~~the~~ their recognised uses ~~of the aquifer~~ (identified in Schedule 3).

See also: Policy 9.4.9
Rules: 12.1.2.4, 12.1.2.5, 12.1.4.2 to 12.1.5.1, 12.2.3.1
Other methods: 15.8.2.1, 15.8.2.2

Decision: E1a

6.4.12 *[Also from 9.4.12]* **To promote, establish and support appropriate water allocation committees to assist in the management of water rationing and ~~flow~~ monitoring during periods of water shortage.**

Explanation
Water allocation committees can assist the ~~Otago Regional~~ Council to manage the region's water resources when ~~flows approach~~ approaching minimum flows or aquifer restriction levels established by this Plan. These committees can effectively manage water rationing to avoid or delay reaching the minimum flow or aquifer restriction level.

The committees will be made up of local representatives of people taking water from within the catchment affected by the ~~minimum flow~~ rationing regime. The ~~Otago Regional~~ Council will appoint such committees, as subcommittees of the Council, for the purpose of developing and managing rationing regimes. It will support them by providing hydrological information, and advice on options for rationing to suit particular circumstances, and by enforcing compliance with rationing regimes, as provided for by Policy 6.4.13. The rationing regimes require approval of the ~~Otago Regional~~ Council.

Principal reasons for adopting
This policy is adopted to ensure that effective water rationing decisions can be made. Where possible it is intended to take full advantage of local knowledge of water user needs, to ensure local circumstances are taken into account. This is because details of rationing are best arranged among water users to avoid unnecessary conflict in periods of water shortage. The committee membership and committees' rationing regimes require the approval of the Council before they can operate as committees of the Council.

Other methods: 15.2.2.1, 15.3.2.1

6.4.12A To promote, approve and support water management groups to assist the Council in the management of water by the exercise of at least one of the following functions:

(a) Coordinating the take and use of water authorised by resource consent.

(b) Rationing the take and use of water to comply with relevant regulatory requirements.

(c) Recording and reporting information to the Council on the exercise of resource consents as required by consent conditions and other regulatory requirements, including matters requiring enforcement.

Explanation
Formation of water management groups is voluntary. They provide flexibility for two or more consent holders to cooperate in exercising their consents, but without the added formality associated with a water allocation committee.

Appendix 2A sets out the criteria for consent holders to be approved by the Council as a water management group.

Consents may:

- Be managed to an agreed rationing regime; or
- Be held by the water management group; or
- Contain a condition requiring the consent to be exercised as directed by the water management group.

Any water rationing decisions made by the group will impact only on those consents held by the group or its members. The Council will only enforce a group rationing regime at the request of the group and if the regime has been approved by the Council.

The group may choose to apply to vary the consents under their control to allow metering and reporting requirements to be rationalised and undertaken by the group.

The Council will support water management groups by making available hydrological information and advice on options for rationing and, where no

new allocation is available (i.e. where Policies 6.4.2A or 6.4.10AA apply), by enabling the water management group to take over the allocation status of the surrendered consent.

Principal reasons for adopting
This policy is adopted to enable groups of water users to form and take on more responsibility in managing the taking and use of water. Such groups are well placed to use local knowledge of water needs, to ensure local circumstances are taken into account and to avoid unnecessary conflict in periods of water shortage.

<Cross references to be added>

Decisions: C1c, E1a, C1b, C1f

6.4.13 *[Also from 9.4.13]* **To suspend the taking of water as required to comply with any Council approved rationing regime ~~established, by a water allocation committee established in terms of Policy 6.4.12, or by the Council in the absence of a water allocation committee~~.**

Explanation
This Policy ~~is adopted to provide~~ provides for the suspension of water takes in accordance with the requirements of any Council approved rationing regime ~~established by a water allocation committee or the Council, where a water allocation committee is not the preferred option of the water users. The Council will review and approve the rationing regimes of the allocation committees. Consent conditions will support the rationing regime established by the allocation committee or the Council~~.

Rationing regimes may be proposed by water allocation committees, water management groups or the Council. A rationing regime will include:

- The area covered by the regime;
- The consents covered by the regime;
- The flow at which the regime will commence; and
- A description of how the regime will be applied.

Where a water management group intends that rationing is to be enforced, it must be party to an approved rationing regime. The requirement for compliance with any approved rationing regime ~~established by a water allocation committee or the Council,~~ will be a condition of relevant resource consents ~~that can be included on new consents, or upon the review of existing consents~~.

Principal reasons for adopting
This policy is adopted to enable the ~~equitable~~ fair sharing of water ~~resources~~ under low flow conditions, and to assist ~~to~~ in ~~delay~~ delaying the wider suspension of takes ~~by a minimum flow restriction~~.

Rules: 12.1.4.2 to 12.1.4.4, 12.1.4.6, 12.1.4.7, 12.1.5.1, 12.2.3.1
Other methods: 15.2.2.1

Decision: B7a

6.4.14 Other than as may be provided for by Policies 6.5.5, 8.4.2 and 10.4.4, those taking water will not be restricted by the minimum flows set by this Plan, where the quantity taken is within any net flow augmentation specifically provided for that taking.

Explanation
This policy recognises that, where augmentation occurs, resource consents to take up to the augmentation volume may be issued, which are not subject to any minimum flow. Net flow augmentation is that water added to a water body through an augmentation scheme, for a subsequent take, which is estimated to still be present in the water body at the point of take. Quantities provided through augmentation may be reduced by leakage, or evaporation losses. Such losses will be deducted when determining the net flow augmentation that has been provided.

Other policies recognise a requirement to take water, which may have an adverse effect, but requires compensation. These policies are:
(a) Policy 6.5.5, which requires regard to be given to avoiding specified adverse effects when augmentation involves inter-catchment transfers;
(b) Policy 8.4.2, which recognises the need for compensation arising from the associated damming of water; and
(c) Policy 10.4.4, which recognises that the taking of water may affect a wetland.

Principal reasons for adopting
This policy is adopted to provide for unrestricted access by resource users to water that they themselves have provided through augmented flows. Losses are taken into account to ensure that takes that would not be subject to minimum flows would not result in minimum flows being breached.

Rules: 12.1.4.1

6.4.15 *[Refer to 6.4.0A]* ~~**To ensure that the quantity of water granted under a resource consent for the taking of water is no more than that required for the intended use of that water having regard to the local conditions.**~~

~~**Explanation**~~
~~When considering applications for resource consents to take water, the actual quantity required for the intended use of the water taken must be reflected in any resource consent granted. Given the diverse nature of the Otago region, those requirements may also be affected by conditions within the catchment, and these should also be taken into account in determining the appropriate quantity of water to be granted.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to ensure that the water allocated to any take under a new resource consent is no more than the actual requirements of the user. This will enable more people to benefit from water available for consumptive use.~~

~~*Rules: 12.1.4.2 to 12.1.5.1*~~
~~*Other methods: 15.3.1.1*~~

6.4.16 *[Also from 9.4.22]* **In granting resource consents to take water, or in any review of the conditions of a resource consent to take water, to require the volume and rate of take to be measured in a manner satisfactory to the Council unless it is impractical or unnecessary to do so.**

Explanation
It is appropriate to require that the volume and rate of any take of water be measured unless it is impractical or unnecessary to do so. This is the case where there may be uncertainty about the actual demand at various times and where adverse effects on the environment, or other users, could arise due to demand being either under-estimated or over-estimated. The requirement to measure takes may be waived on a case-by-case basis when considering resource consent applications to take water, where measurement is not practicable or where there is no benefit derived from doing so.

Information on volume and rate of take may also be required as a result of a catchment wide review of consent conditions undertaken in accordance with Policy 6.4.5 (b), (c) and (d), Rules 12.1.4.2 (iii), 12.1.4.3 (iii), 12.1.4.4 (iv), ~~and~~ 12.1.4.7 (vi), 12.2.3.1A and 12.2.3.2A, and Method 15.9.1.

Principal reasons for adopting
This policy is adopted to provide for the measurement of water takes in a manner suitable to the needs of the Council and the environment. The policy will assist to identify actual demand for water, and thus may provide for more efficient allocation and use of water.

The reasons for requiring the measuring of takes as a result of a catchment wide review of consent conditions, under Policy 6.4.5 (b), (c) and (d), include:

- Better information on the volumes and rates taken will assist in establishing the influence of abstractions, if any, on the incidence and duration of minimum flows breaches, and also assist with water balance equations, allowing improved water management generally;
- Better information will assist water allocation committees to more effectively manage the rationing of takes during times of low flows to prevent minimum flows from being breached; and
- Better take information may enable supplementary allocation to be granted, ensuring instream values and flow variation are appropriately provided for and to prevent supplementary minimum flows from being breached.

Rules: 12.1.4.2 to 12.1.5.1

Decision: E1h

6.4.17 *[Also from 9.4.11]* ~~**On the application of any consent holder, to**~~ **To approve an application ~~the~~ to transfer ~~of~~ a ~~consents~~ consent holder's interest in a resource consent to take and use water in terms of Section 136(2)(b)(ii) of the Resource Management Act, retaining the take's allocation status, providing:**

(a) The ~~transferred take~~ transfer is ~~exercised~~ within the same catchment or aquifer as the original consent, or both sites are connected in terms of Policy 6.4.1A(a) or (b); and

(b) The total take from the water body following transfer does not exceed that occurring prior to the transfer, as a result of the transfer; and

(c) The quantity of water taken is no more than that required for the ~~intended~~ purpose of use of that water, having regard to the local conditions; and

(d) There is no more than minor adverse effect on any other take, any right to store water, or on any natural or human use value, as a result of the transfer.

Explanation

Section 136(2)(b) of the Resource Management Act provides for the transfer of ~~a resource~~ the whole or any part of a consent holder's interest in a consent for the taking and use of water~~, or part of a consent, to another site or~~ to another person on another site, or to another site, if both sites are in the same catchment (either upstream or downstream) or aquifer. Transferring a take under this policy will not change its allocation status. A take originally in the primary allocation will be transferred as a primary allocation take, and will remain subject to the primary allocation minimum flow.

An application to transfer the consent holder's interest in the consent must be made to the ~~Otago Regional~~ Council. This policy sets out the requirements for the transfer of ~~consents~~ consent holders' interests in consents to take and use water to be approved by the Council. The explanation to Policy 6.4.~~16~~0A provides additional guidance in terms of (c).

Principal reasons for adopting

This policy is adopted to enable new users to gain access to existing allocated resources provided the natural and human use values of Otago's water bodies, and other water users' interests in the water resource, are not adversely affected. Such transfers may become important where the demand on the water resource is already high. In such circumstances, transfers are a means by which opportunities for diverse consumptive use of the allocated resource can be achieved.

Rules: 12.1.4.2 to 12.1.5.1

Decisions: E1b, A2c, B4c, B3c

6.4.18 Where a resource consent for the taking of water has not been exercised for a continuous period of 2 years or more, disregarding years of seasonal extremes, the Otago Regional Council may cancel the consent.

Explanation
Where any consent for a take of water has not been exercised for a period of 2 years, the consent may be cancelled under Section 126 of the Resource Management Act. This 2 year period will not include very dry years where water is not available to take, or very wet years when the water is not needed for the intended use of the consent.

Principal reasons for adopting
This policy is adopted to enable those wishing to use allocatable water to do so, by cancelling existing authorities to take that are not being exercised.

Rules: 12.1.3.1 to 12.1.5.1

6.4.19 ~~The term of any permit that is granted subject to a minimum flow applied under Policies 6.4.3, 6.4.9(a) or 6.4.10 may be up to 35 years.~~

~~Explanation~~
~~Permits subject to a minimum flow applied under Policies 6.4.3, 6.4.9(a) or 6.4.10 may be granted for a term of up to 35 years, if that is the term applied for, because these minimum flows provide for aquatic ecosystems, natural character and other water users.~~

~~Principal reasons for adopting~~
~~This policy is adopted to enable long term security of access to water resources where instream needs have been assessed and provided for in terms of this Plan. The use of longer terms will assist with minimising the costs of implementing the Plan.~~

~~Rules: 12.1.3.1 to 12.1.5.1~~

When setting the duration of a resource consent to take and use water, to consider:
(a) The duration of the purpose of use;
(b) The presence of a catchment minimum flow or aquifer restriction level;
(c) Climatic variability and consequent changes in local demand for water;
(d) The extent to which the risk of potentially significant, adverse effects arising from the activity may be adequately managed through review conditions;

(e) Conditions that allow for adaptive management of the take and use of water;
(f) The value of the investment in infrastructure; and
(g) Use of industry best practice.

Explanation
There can be tension between granting sufficiently long consent durations to enable continued business viability and managing the greater environmental risk associated with long duration consents. The duration of each resource consent to take and use water should have regard to the particular circumstances of the activity and its likely environmental effects, but there needs to be good reason for Council to reduce the duration of consents from that required for the purpose of use.

Where more is known about a water resource, such as when a catchment minimum flow has been specified in Schedule 2B, or an aquifer restriction level has been specified in Schedule 4B, and a council approved rationing regime will be adhered to, the risk of adverse effects being unforeseen is reduced and longer duration consents may be appropriate.

Consent review provisions provide an opportunity to allow longer consent durations while ensuring the requirements of this Plan are met over time. Where there is a higher degree of risk of adverse effects, uncertainty of longer term availability of the water resource, or the applicant is unwilling to volunteer adaptive management conditions (it may be too difficult to set suitable review conditions), a shorter duration consent may be appropriate.

Adaptive management provisions may be volunteered in situations where there is uncertainty about the response required to meet future change, including rapidly changing technology or a rapidly changing environment. Such provisions enable a proposal to proceed with sufficient, but not exhaustive, assessments of all risks and contingencies. Environmental standards initially set may be varied to be more or less restrictive over the life of the consent, in light of changing circumstances and community expectations.

A shorter duration consent may be appropriate for out-of-catchment or opportunistic water uses, particularly where an increase in local demand is reasonably foreseen.

Short duration consents should not be used as an alternative to declining consent, or as a response to poor assessments of environmental effects prepared by consent applicants.

Principal reasons for adopting
This policy provides greater certainty on the assessment criteria used when deciding on the duration of the consent to take and use water.

<Cross references to be added>

Decision: B8a

6.4.20 *[Repealed]* ~~**In catchments where water permits are affected by the exercise of mining privileges, any water permits granted by the Council will be:**~~

~~**(a) For a term expiring on or before 1 October 2021; or**~~

~~**(b) For a longer term, subject to a condition enabling the Council to review the conditions of the water permit to restrict the exercise of that permit to allow the exercise of another water permit.**~~

~~**Explanation**~~

~~Mining privileges confer priorities to water. These historic priorities expire on 1 October 2021. Holders of mining privileges who wish to continue their activities after that date will need to apply for new water permits. At that time it will be appropriate for the Council to evaluate the inter-relationship of all activities affecting water (whether under a mining privilege or water permit) in the catchment to determine whether any water permit should be subordinate to any other water permit.~~

~~This policy creates no presumption that new priorities will or will not be afforded to any replacement consents.~~

~~So that this evaluation can be carried out, water permits will be granted for a term or on conditions that allow the Council to take account of activities authorised by water permits, as well as activities permitted by expiring mining privileges.~~

~~Where mining privileges do not affect other water permits then this policy will not be applied.~~

~~**Principal reasons for adopting**~~

~~The policy is adopted to enable the Council to simultaneously assess the relationship between takes and other uses involving water in catchments affected by the exercise of mining privileges and, where necessary and appropriate, restrict the taking or other activity affecting water under one permit in favour of another water permit.~~

~~*Rules 12.1.4.1 to 12.1.5.1*~~

6.4.21 *[Repealed]* ~~**In granting water permits, the Council may restrict the exercise of a water permit to allow the exercise of another water permit.**~~

~~**Explanation**~~

~~In some circumstances the exercise of a water permit may need to be subject to, or subservient to, the exercise of another water permit.~~

~~For example, such consideration may be required to ensure that a water body is not adversely affected by the simultaneous exercise of multiple takes or the exercise of one take is not adversely affected by the exercise of~~

~~the other take or takes. This can occur when the instantaneous take volumes are larger than the water available to be taken and there are takes that can conflict with each other. Similar considerations may be needed on a river where there are dams that may affect or be affected by takes or other dams.~~

~~The Council may consider making one permit subordinate to another permit when it deals with an application for a consent for a water permit currently authorised by a mining privilege. In such cases, no assurance can be given that a replacement permit will be granted, nor that a new permit will continue any existing priorities.~~

~~Where an application is made for a permit to replace an expiring mining privilege, the Council will consider, but not exclusively:~~

~~1. Whether the take previously held priority or was subject to a priority.~~
~~2. When the mining privilege is exercised.~~
~~3. The extent to which the mining privilege is exercised.~~
~~4. How often the exercise, or potential exercise, of any water permit or lower priority mining privilege is, or could be, affected by the priority attached to a mining privilege.~~
~~5. Whether the amount of water authorised to be taken under the mining privilege is more than needed for the actual use.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to indicate that the Council may make water permits subject to or subservient to other water permits where appropriate and necessary whether mining privileges are involved or not.~~

~~*Rules 12.1.4.1 to 12.1.5.1*~~

6.5 Policies regulating the management of lake levels, and the damming, diversion and augmentation of rivers.

6.5.1 To set a minimum level for Lake Tuakitoto of 100.77 metres above datum, applying during the period beginning 30 September in any year and ending 16 May in any following year.

Explanation

Any new resource consent for an activity that would lower the level of Lake Tuakitoto must observe the relevant minimum level established by this policy. These activities would include existing or new:

(a) Takes of water; and
(b) Diversions of water.

Rules 12.1.1.1 and 12.3.1.4 prohibit the taking or diversion of water when the level is below 100.77 metres above datum.

Principal reasons for adopting
This policy is adopted to continue the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

Rules: 12.1.1.1, 12.3.1.4

6.5.2 Where lake levels are already controlled, to recognise and provide for the purpose of that control if limits are to be placed on operating levels.

Explanation
Some of Otago's lakes are controlled through the use of dams for specific purposes, storage for irrigation supply and electricity generation for example. The purposes of any existing controls are to be recognised and provided for when considering resource consents that affect lake levels. Limits on operating levels may be imposed, where necessary, in accordance with Policy 6.5.3.

Principal reasons for adopting
This policy is adopted to ensure that the purpose of controlling any lake where such control already exists is not unduly compromised. Given the investment in dams and associated structures, it would be inappropriate to prevent the use of the dammed water for the purpose for which it was dammed.

Rules: 12.3.3.1

6.5.3 To limit the operating levels of any controlled lake, where appropriate, to avoid or mitigate adverse effects on:

(a) Natural and human use values identified in Schedule 1;
(b) The natural character of the lake;
(c) The amenity values supported by the lake;
(d) Lake margin stability; and
(e) The needs of Otago's people and communities.

Explanation
Changes in the levels of lakes and the rate of change can adversely affect the matters identified in (a) to (e) of the policy. It is important to consider new proposals to manage lake levels and new consents for existing dams, in order that appropriate conditions can be set to avoid or mitigate these adverse effects. These conditions will address extremes in lake levels, and the rates of change of such levels. It is also important when considering an activity affected by this policy that consideration is given to Policy 6.5.2.

Principal reasons for adopting
This policy is adopted to provide for the protection of the matters (a) to (e) above, which can be adversely affected by inappropriate lake levels and their rates of change.

Rules: 12.3.3.1

6.5.4 In regulating the management of flows, other than in association with a small dam or any dam designed to contain contaminants, to have regard to provision for:

(a) The requirements of:
(i) Natural and human use values identified in Schedule 1;
(ii) The natural character of the water body; and
(iii) Amenity values supported by the water body; and
(b) The periodic release of sufficient quantities of water at appropriate flow rates, where necessary to remove excess algal growth or an accumulation of sediment downstream of the dam; and
(c) The existing needs of consumptive users of water,
while taking into account, where appropriate, the extent to which the water body has been modified by resource use and development.

Explanation
This policy identifies the measures that may be required in managing controlled flows, to avoid or mitigate adverse effects. Dams designed to contain contaminants, and small dams permitted by Rules 12.3.2.1 and 13.2.1.3, are excluded. Where the controlled flow conditions could lead to the river's natural and human use values, or uses of that water, being degraded or compromised, discharge flows can be modified to avoid or mitigate those effects. This may be achieved through setting maximum and minimum levels of flow, and through control of the range or rate of change of flow levels. The natural and human use values downstream of any existing dam not designed to pass water will be maintained by continuing the existing operating regime. The measures identified in the policy would be introduced upon conditions on the relevant resource consents.

Where existing development affecting the water body may have led to a stable equilibrium situation with its own natural character, this will be taken into account when invoking the provisions of this policy.

Principal reasons for adopting
This policy is adopted to ensure that the natural and human use values supported by water bodies are sustained. The measures identified will provide for adequate water and appropriate flow variation for the existing values and uses.

Rules: 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.13.1.1, 14.3.2.1

6.5.5 In considering resource consents for flow augmentation proposals involving any transfer of water between catchments that was not lawfully established before 28 February 1998, regard will be had to avoiding:

(a) The introduction of flora or fauna which are not already present;
(b) The reduction of water quality in the receiving catchment; and
(c) Adverse effects on Kai Tahu cultural and spiritual beliefs, values and uses.

Explanation
Augmentation of surface water flows for the purposes of this policy occurs where water is brought into a catchment for subsequent release. When considering any relevant resource consents required for new augmentation schemes, regard must be had to avoiding the adverse effects identified in this policy.

Principal reasons for adopting
This policy is adopted to ensure that new proposals for the augmentation of water resources do not lead to adverse effects on the flora and fauna, water quality, or cultural and spiritual beliefs, values or uses of the water resources.

Rules: 12.3.3.1, 12.3.4.1, 12.13.1.1

6.5.6 Financial contributions, or works or services may be required to offset, remedy or mitigate any unavoidable adverse effect of the diversion of water on:

(a) Any natural or human use value identified in Schedule 1;
(b) The natural character of the water body;
(c) Any amenity value supported by the water body; or
(d) Any heritage value associated with any affected water body.

Explanation
The diversion of water can result in unavoidable adverse effects on the natural and human use values supported by the water body. Where such effects occur, financial contributions, or works or services may be required as a condition of a resource consent to offset, remedy or mitigate the effects. The amount and type of financial contribution, or the type of work or service, will depend on the nature of the activity and will relate to the adverse effects on the natural and human use values. Financial contributions are detailed in Chapter 17 of this Plan.

Principal reasons for adopting
This policy is adopted to ensure provision is made to either offset, remedy or mitigate any unavoidable adverse effect of the diversion of water.

Rules: 12.3.3.1, 12.3.4.1
See also: Chapter 17; Policies 8.4.2, 10.4.4

6.6 Policies for the promotion of management of water resources by users

6.6.0 To promote and support development of shared water infrastructure.

Explanation
Water infrastructure includes the physical systems used to take, store, distribute and use water. While individual systems may work well in some situations, there are many areas throughout Otago where shared water

infrastructure is required, including urban water supplies, community domestic supplies and multi-property irrigation supplies.

There are also opportunities to rationalise water supply, to store surface water, to distribute water more efficiently, to better integrate use of available water sources and to develop new water supply systems where community investment in water infrastructure will provide the best return on investment.

For its part, the Council will provide information about the water resources and help facilitate responses to local water needs. The Council will collaborate with the community and others in scoping strategic options for development of new infrastructure, where necessary.

Principal reasons for adopting
This policy is adopted to ensure future investments in water infrastructure achieve sustainable management of the region's water resources.

<Cross references to be added>

Decision: C2a

6.6.1 To promote water conservation practices through:

(a) Promoting water use practices which minimise losses of water; and
(b) Promoting water use practices which require less water.

Explanation
The Otago Regional Council will promote voluntary action by agricultural, industrial and domestic water users, to minimise the amount used for any particular purpose. This policy identifies the areas which can be targeted to achieve this outcome. The Council will provide appropriate information to assist water users to identify opportunities to use water more efficiently.

Principal reasons for adopting
This policy is adopted to achieve more efficient use of the water resource and thereby increase the available supplies for existing and potential users within the constraints of minimum flows established by this Plan.

Other methods: 15.2.1.1, 15.2.3.1, 15.3.1.1, 15.4.2.1

6.6.2 To promote the storage of water at periods of high water availability through:

(a) The collection and storage of rainwater; and
(b) The use of reservoirs for holding water that has been taken from any lake or river.

Explanation
The Otago Regional Council will promote voluntary storage of water by resource users. This policy identifies the means by which storage is

encouraged. Water used to fill storage is collected during periods of high flow, for subsequent use in periods when demand exceeds supply.

Principal reasons for adopting
This policy is adopted to give recognition to water storage as a way to achieve more efficient use of the water resource. Storage may reduce the need to take water from lakes or rivers when available supplies are limited and the potential for adverse effects of taking is greatest.

Other methods: 15.2.3.1, 15.3.1.1

6.6.3 To work with and seek the co-operation of holders of deemed permits in:

(a) The observance of any minimum flows or levels applying to other users;
(b) Ensuring that the quantity of water taken is no more than that required for the intended use of that water, in accordance with Policy 6.4.15; and
(c) The measuring of takes and return flows.

Explanation
Deemed permits (see Appendix 2) have become a significant element of Otago's water management regime and confer significant benefits upon the region's people and communities. This policy establishes means to assist in the development of methods and strategies for the orderly transition from deemed permits, which expire in 2021, to resource consents. The means in (a) to (c) of the policy are intended to introduce equity in the implementation of minimum flows, remove excessive allocation and provide resource use information. There will be consultation with users to ensure that no arbitrary changes are required. Where voluntary methods fail the Council may consider using other options.

Principal reasons for adopting
This policy is adopted to support a possible transition from deemed permits to resource consents. This transition may be needed because the exercise of deemed permits can constrain opportunities to implement minimum flows established by this Plan to maintain the life-supporting capacity for aquatic ecosystems and natural character of rivers.

Seeking the co-operation of holders of deemed permits is an effective means of developing more appropriate provisions for management of water in the long term.

Other methods: 15.7.1.1 and 15.9.1

6.6A Policies relating to the Waitaki catchment

Policy on a whole-catchment approach

6.6A.1 By recognising the importance of connectedness between all parts of the catchment from the mountains to the sea and between all parts of freshwater systems of the Waitaki River and associated beds, banks, margins, tributaries, islands, lakes, wetlands and aquifers.

Explanation
The Waitaki catchment is large and complex. This policy recognises the importance of taking a whole-catchment "mountains to the sea" approach to water allocation in the catchment – an approach that recognises the physical, ecological, cultural and social connections throughout the catchment.

Policies on the allocation to activities

6.6A.2 In considering effects and when allocating to activities under the provisions of this Plan:

(a) Tāngata whenua values are those held by Kāi Tahu;
(b) National effects refer to those that arise within New Zealand; and
(c) Local effects refer to those that arise in the Mackenzie District, the Waimate District and the Waitaki District.

Explanation
This policy presents the scope of effects as they apply to this Plan. Part (a) reflects the Ngāi Tahu Claims Settlement Act 1998 which recognises the mana of Kāi Tahu in relation to a range of sites and areas in the South Island. Effects are considered from both national and local perspectives. It is recognised that local social and economic effects are likely to extend beyond the catchment boundary, and will vary unevenly with distance, depending on the circumstances of each case. For the purpose of this Plan however, it is necessary to define the scope of local effects considered in order to define the basis of assessment, and this is provided in part (c) of this policy.

<Cross references to be added>

6.6A.3 To establish an allocation to each of the following activities:

(a) Town and community water supplies;
(b) Hydro-electricity generation;
(c) Agricultural and horticultural activities;
(d) Industrial and commercial activities;
(e) Tourism and recreation facilities; and
(f) Any other activities,
by:
(i) Having regard to the likely national and local effects of those activities;
(ii) Reference to relevant national, regional and local plans and strategies;

(iii) Recognising the importance of irrigation to agriculture and horticulture;
(iv) Considering the relative environmental effects of the activities including effects on landscape, water quality, mauri, and the beds of lakes and rivers;
(v) Assuming a high level of efficacy and technical efficiency;
(vi) Giving a preference to needs for water within the catchment; and
(vii) Expressing the allocation to activities in annual volumes downstream of Waitaki Dam but downstream of Black Point.

Explanation
One of the requirements of the Resource Management (Waitaki Catchment) Amendment Act 2004 is that this Plan must provide for the allocation of water to activities. Policy 6.6A.3 contains the categories of activities and describes the approach used to make allocations among the activities. These allocations apply, at the point that water is taken, to new and replacement consents from all water bodies including canals, and will require all consents to specify an annual volume. Policy 6.6A.2 provides further description of how the local and national effects are defined. Any activity that falls outside the allocations set under this policy in the rules will be a non-complying activity and must demonstrate the effect of granting the consent on the entitlements to other allocations over the timeframe of the consent. Applications for resource consents are still required for taking or diverting water within the allocation volumes. They are subject to the other provisions of this Plan, and to the consideration of effects under the resource consent processes.

Rules: 12.1.4.4A, 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.6.1, 12.1.6.2, 12.2.4.1, 12.2.5.1, 12.3.3.1, 12.3.4.1, 12.3.5.1, 12.3.5.2
Other methods: 15.2.1.1, 15.2.3.1, 15.3.1.1

6.6A.4 In considering whether to grant or refuse consent to take, divert, dam or use water allocated for agricultural and horticultural activities, the consent authority will have regard to the extent to which exercise of the consent could result in the water quality objective in this Plan not being achieved.

Explanation
This policy recognises the importance of water quality considerations when allocating water to agricultural and horticultural activities and, in particular, to irrigation. The intensification of land use, including that arising from irrigation, increases the potential for adverse effects on water quality. The Waitaki catchment has some sensitive and pristine water bodies that have not to date had intensive land uses in their catchments. This policy links to the water quality chapter to ensure these matters are considered when deciding consents.

Objective: 7.5.1
Rules: 12.1.4.4A, 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.6.1, 12.1.6.2, 12.2.4.1, 12.2.5.1, 12.3.3.1, 12.3.4.1, 12.3.5.1, 12.3.5.2
Other methods: 15.2.3.1, 15.4.2.1, 15.4.2.2

6.6A.5 In considering whether to grant or refuse consents to take, divert or use water outside of the Waitaki catchment, the consent authority will have regard to the extent to which granting consent will reduce the availability of water to current and reasonably foreseeable in-catchment needs.

Explanation
In parts of the catchment there is insufficient water to reliably meet all current and future demands. This policy places a primacy on demands for water within the catchment by providing for in-catchment needs for water to be considered before a consent authority decides whether or not to grant applications to take water out of the catchment. The policy does not preclude the grant of applications for out-of-catchment use, but provides for consideration of likely in-catchment needs when considering such applications. Policy 6.5.5, concerning the adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses, including mauri, may also be relevant to the consideration of such applications.

Policy: 6.6.5
Rules: 12.1.4.4A, 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.6.1, 12.1.6.2, 12.2.4.1, 12.2.5.1, 12.3.3.1, 12.3.4.1, 12.3.5.1, 12.3.5.2
Other method: 15.2.3.1

Policy for Welcome Creek

6.6A.6 By setting an environmental flow and level regime in Welcome Creek that recognises and provides for the relationship of Kāi Tahu and their culture and traditions with Welcome Creek, and enables appropriate access to waterfor activities identified in Policy 6.6A.3 to the extent consistent with the objective in this Plan.

Explanation
This policy sets the basis for the environmental flow and level regime for this creek which are set in the rules. It identifies particularly important values that were considered in setting the regime.

Policy 6.6A.3
Rules: 12.1.4.4A, 12.1.4.7, 12.1.4.8, 12.1.6.2, 12.3.5.2
Other method: 15.2.3.1

6.7 Anticipated environmental results

6.7.1 There is sufficient water remaining to support the life-supporting capacity and natural character of rivers.

6.7.2 *[Also from 9.5.1]* **People and communities have access to suitable supplies of water for their present and reasonably foreseeable needs.**

6.7.3 Inter-catchment transfers of water do not result in the introduction of new flora or fauna.

6.7.4 The levels of controlled lakes are managed as far as practicable to be compatible with the surrounding environment.

6.7.5 Flows and flow variation downstream of dam structures provide for the requirements of other users of water, and the natural and human use values.

6.7.6 More efficient water taking and use practices are utilised.

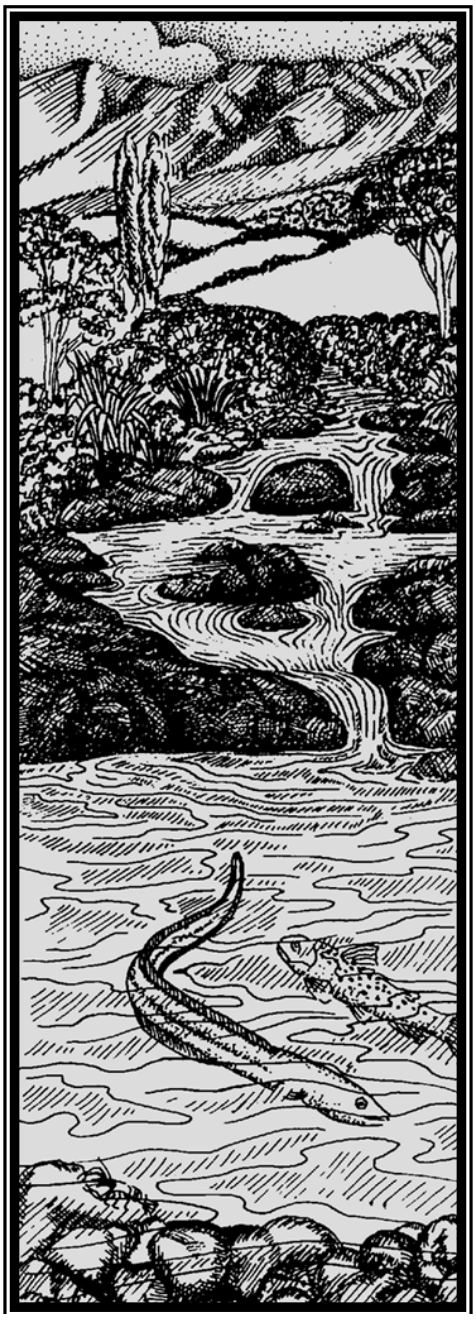
6.7.7 Maximum community benefit is gained from available surface water resources and security of reasonable lawful access is provided for.

6.7.8 *[Also from 9.5.3]* **Conflict among those taking water is minimised.**

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

7

Water Quality



7.1 Introduction

The well being, health and safety of Otago's communities depends to a large degree on the quality of water in the region's lakes and rivers. Otago generally enjoys high quality water which provides opportunities for varied community use, including recreation, domestic and public water supply and irrigation. It also sustains indigenous flora and fauna, trout and salmon, and contributes to the amenity values and natural character of Otago's lakes and rivers.

Water quality can be adversely affected by discharges of contaminants resulting from human activities. There are two main types of discharges that can affect water quality. These discharges are generally called "point source", those that occur at a definable place, often through a pipe or drain, and "non-point source", those that enter a water body from a diffuse source, such as land runoff or infiltration. Where water quality is adversely affected by these discharges, they will, in turn, reduce the ability of lakes and rivers to support Otago's people and communities, and aquatic life. There is a particular concern in relation to discharges of human sewage to water which Kai Tahu find culturally offensive.

Policy 6.5.5 of the Regional Policy Statement for Otago promotes a reduction in the adverse effects of contaminant discharges to Otago's water bodies. Existing water quality is to be maintained and, where appropriate, is to be enhanced to support aquatic life, and contact recreation. This chapter seeks to achieve this through the management of point source and non-point source discharges. The management of discharges by resource users is also promoted where that can be effective.

This chapter provides for management of discharges that may adversely affect water quality. It is recognised that water quality can be adversely affected by the taking of water, in that such takes may reduce the capacity of a lake or river to assimilate contaminants. Adverse effects due to a contaminant discharge should be mitigated in the first instance by reducing the level of contaminant being discharged, rather than increasing the assimilative capacity of the water body.

The city and district councils of Otago have an essential role in achieving water quality objectives, particularly through their management of the effects of land use, in relation to non-point source discharges. The objectives and policies of this Plan will provide the necessary direction for that.

Note: The provisions in this chapter are in addition to those in Chapter 5, which seek to maintain or enhance the natural and human use values supported by lakes and rivers.

7.2 Issues in general

7.2.1 Discharges of contaminants, on their own or cumulatively, can adversely affect the life-supporting capacity and people's use of Otago's lakes and rivers.

Explanation
The discharge of contaminants may exceed a water body's capacity to absorb or assimilate them. This can result in any of the following changes to water quality:

(a) Increased sediment loads;
(b) The presence of floatables (grease, fat, solids etc);
(c) Offensive odours;
(d) Increased BOD_5;
(e) Increased nutrient levels;
(f) Decreased oxygen concentrations;
(g) Increased pathogenic contamination;
(h) Increased levels of toxic substances.

Such changes can reduce the ability of water bodies to support people's use of water and the plants and animals that live in that water. Given the importance of water use to people and the intrinsic value of aquatic life, such reductions in water quality are of concern.

Objectives: 7.5.1
Policies: 7.7.1 to 7.7.11, 7.8.1 to 7.8.6, 8.8.2

7.2.2 In some Otago lakes and rivers, discharges of contaminants have resulted in water quality degradation so that their ability to support aquatic life or contact recreation is compromised.

Explanation
The point source or non-point source discharge of contaminants has already adversely affected the water quality in some of Otago's lakes and rivers. This has reduced the ability of these water bodies to support contact recreation, or plants and animals that live in that water. Such degraded water quality is of concern to Otago's communities and visitors.

Objectives: 7.5.1
Policies: 7.6.1 to 7.6.3, 7.7.3, 7.7.11

7.3 Issues related to point source discharges to water

7.3.1 Inappropriately large mixing zones for the discharge of contaminants can compromise the natural and human use values supported by water bodies for considerable distances downstream.

Explanation
Discharges of contaminants authorised under resource consents must meet any specified water quality standard set in respect of receiving waters after reasonable mixing. Reasonable mixing occurs in a mixing zone, which can be regarded as an accepted area of non-compliance. Beyond the mixing zone, there should be no adverse effects on the natural and human use values supported by the water body.

Where the size of mixing zones is inappropriate, the effect of the contaminant extends over a wider area of the water body. The treatment of contaminants prior to discharge can enable a reduction in the extent of a mixing zone. What is acceptable as a mixing zone in one water body may not be acceptable in others, due to differences in the sensitivity of supported values, the physical nature of the natural processes, and the nature of the discharge. All of these factors need to be considered in the determination of reasonable mixing.

Objectives: 7.5.1
Policies: 7.7.6

7.3.2 Some point source discharges, including those that are subject to a resource consent, can have unforeseen adverse effects on water quality.

Explanation
When resource consents are granted allowing discharges of contaminants to water, conditions are included with the intention that, if they are complied with, the natural and human use values supported by the receiving water body would not be adversely affected. In some cases, the values of a water body are adversely affected by the discharge, even though the resource consent conditions are being complied with. Where this occurs, it may be necessary to review the conditions of the resource consent.

Objectives: 7.5.1
Policies: 7.7.8, 7.7.9

7.3.3 Stormwater discharges are unavoidable, but may contain contaminants that have the potential to degrade water quality.

Explanation
Stormwater is the water that runs off any impervious surface. In urban or industrial areas, stormwater is commonly collected, reticulated and discharged to water. The water can pick up contaminants prior to collection, as it runs over land. These contaminants may be derived from a number of sources, including:
(a) Oil residues and other contaminants from roads and carparks;
(b) Accidental spills;
(c) Contaminated land; and
(d) Litter.

Once stormwater reaches a reticulation system, it can become contaminated through:
(a) Sewerage and stormwater systems not being effectively separated; or
(b) Inappropriate disposal of material to the system.

There are a number of techniques used to improve the condition of stormwater prior to its discharge.

Objectives: 7.5.1
Policies: 7.7.4, 7.7.10, 7.7.11

7.3.4 Contaminants are not always discharged to the most appropriate receiving environment.

Explanation
Receiving environments need to be able to assimilate, treat, or absorb the contaminants discharged to them. In the past, water has been used as the most common medium for the disposal of contaminants, although soil is increasingly being seen as an alternative receiving environment. There is a risk of contamination where the discharge exceeds the capacity of the water or land to contain it. Where soil's capacity to assimilate the contaminants is exceeded, subsequent contamination of water may occur through runoff and infiltration.

Objectives: 7.5.1, 7.7.5
Policies: 7.7.1 to 7.7.4

7.4 Issues related to non-point source discharges to water

7.4.1 Water can become contaminated as a result of land use activities which:

(a) Result in discharges of effluent, nutrients or other contaminants;
(b) Could potentially result in accidental spills of contaminants; and
(c) Disturb or generate sediment.

Explanation
The contaminants generated by, or used in conjunction with, land use activities may be carried to surface water bodies through runoff. The risk of contamination of surface water depends on the:
(a) Nature and intensity of the land use;
(b) Distance of the activity from a lake or river;
(c) Nature of the land between the activity and the water; and
(d) Degree to which the associated contaminants are contained.

It is more difficult to manage non-point source contamination, including accidental spills, compared to point source contamination, due to its diffuse or random nature. Non-point source discharges can, however, undermine all efforts previously made to maintain or enhance water quality.

Objectives: 7.5.1

Policies: 7.8.1 to 7.8.4

7.4.2 The erection of a dam for the storage of contaminants can result in the loss or damage to:

(a) The health and safety of people and communities;
(b) Property and infrastructure;
(c) The natural and human use values identified in Schedule 1 supported by any water body affected;
(d) The natural character of any water body affected; and
(e) The amenity values supported by any water body affected,

should the dam fail or be overtopped.

Explanation
Dams may be used to hold quantities of contaminants such as mining tailings, which can lead to degradation of water quality if there is an uncontrolled release. Such a release could occur through a failure of the structure, or an overtopping caused by, for example, a landslide into the reservoir. The adverse effects may include contamination of water, or loss of values supported by affected water bodies. The scale of the risk of damage depends on the size of the dam structure, the volume and nature of contaminants stored, and topography.

Objectives: 7.5.1
Policies: 7.8.6

7.4.3 Water can be contaminated where contaminated land:

(a) Is flooded by an impoundment of water; or
(b) Has water diverted over or through it.

Explanation
There is the potential for adverse effects on surface and groundwater quality where land, contaminated by a hazardous substance, is in contact with water. Damming or diverting water can lead to such direct contact.

Objectives: 7.5.1, 9.3.3
Policies: 7.8.5, 9.4.18 to 9.4.21

7.5 Objective

7.5.1 To maintain or enhance the quality of water in Otago's lakes and rivers so that it is suitable to support their natural and human use values and people's use of water.

Explanation
Otago's lakes and rivers contain a diverse range of natural and human use values and are extensively used by people and the community. The existing water quality in most of the region's lakes and rivers is sufficient to support these values. It is therefore important that no degradation is allowed to occur. This is consistent with Policy 6.5.5 of the Regional Policy Statement

for Otago which requires that existing water quality be used as the minimum acceptable standard. This policy also identifies the circumstances in which enhancement of water quality will be sought so that it is suitable for contact recreation and aquatic life. Policies 7.6.1, 7.6.2 and 7.6.3 of this Plan identify those water bodies which are considered to be degraded in this context.

Principal reasons for adopting
This objective is adopted to ensure that the uses and values of Otago's lakes and rivers that are significant to the region's people and communities, or are important due to their intrinsic value, can continue to be used, enjoyed or appreciated. This reflects the community's expectation that water quality within Otago should support these uses and values.

Policies: 7.6.1 to 7.6.3, 7.7.1 to 7.7.11, 7.8.1 to 7.8.6
See also: 8.6.1, 8.6.2, 8.7.1, 8.8.1, 8.8.2

7.6 Policies for the enhancement of water quality

7.6.1 To enhance the water quality in the following water bodies so that they become suitable to support primary contact recreation:

(a) Mill Creek and Lake Hayes;
(b) Kaikorai Stream;
(c) Water of Leith;
(d) Lower Taieri River (below Allanton);
(e) Lower Silver Stream (below Riccarton Road);
(f) Koau Branch of the Clutha River/Mata-Au;
(g) Tokomairiro River;
(h) Lower Waiwera River (below SH 1);
(i) Heriot Burn; and
(j) Crookston Burn.

Explanation
The water bodies identified above meet one or more of the criteria for enhancement in Policy 6.5.5 of the Regional Policy Statement for Otago.

Otago Regional Council monitoring has shown that the identified water bodies all have median faecal coliform numbers exceeding the level recommended for primary contact recreation (200 CFU/100 ml - USEPA Criteria). Faecal coliforms are an indicator of the presence of disease-causing pathogens, associated with human or animal waste. The ability to safely undertake recreational activities in water is an appropriate indicator of the quality of water within Otago. High numbers of faecal coliforms prevent the safe contact with water in the water bodies identified above.

The enhancement of water quality to a standard suitable for contact recreation will be pursued through the management of point source and non-point source discharges, regardless of whether the water bodies are artificially augmented or not.

Principal reasons for adopting
This policy is adopted to implement Policy 6.5.5 of the Regional Policy Statement for Otago, which requires, where appropriate, the enhancement of Otago's water quality. This reflects the community expectation that water quality within Otago will continue to support natural and human use values. The successful implementation of this policy would provide the opportunity for safe contact recreation in the identified water bodies.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1
Other methods: 15.2.3.1, 15.2.5.1 to 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2, 15.9.1.1, 15.9.1.2

7.6.2 To enhance the water quality in the following rivers so that the Macroinvertebrate Community Index score is increased:

(a) Hayes Creek;
(b) Lower Horne Creek (below gardens walkway);
(c) Lower Kaikorai Stream (below Townleys Road);
(d) Lower Taieri River (below Allanton);
(e) Lower Waipori River (below Lake Waipori);
(f) Lower Tokomairiro River (below Tokoiti);
(g) Lower Owaka River (below SH 92);
(h) Lower Waiareka Creek (below Elderslie Road, Round Hill);
(i) Lower Kaihiku Stream (below Clifton Road); and
(j) Lower Wairuna Stream (below Waipahi-Clydevale Road).

Explanation
The rivers identified above meet one or more of the criteria for enhancement in Policy 6.5.5 of the Regional Policy Statement for Otago.

The condition of aquatic habitat can be measured by the Macroinvertebrate Community Index (MCI) which is an indicator of the condition of benthic (bottom dwelling) invertebrate communities. The MCI is the most widely used and best-known index for New Zealand aquatic invertebrates, and is an appropriate indicator of the life-supporting capacity of rivers. Otago Regional Council monitoring has shown that the identified water bodies all have invertebrate communities which are not characterised by the diversity and composition which could be expected in like habitat types (see Appendix 1). This condition is thought to be at least partly related to poor water quality.

While this policy aims to increase MCI scores, other types of monitoring may also be used in the pursuit of enhancing water quality and habitat. The enhancement of water quality to a standard which supports a higher MCI score will be pursued through the management of point source and non-point source discharges. Appendix 1 identifies the MCI scores that will be sought for the water bodies identified in the policy.

Principal reasons for adopting
This policy is adopted to implement Policy 6.5.5 of the Regional Policy Statement for Otago, which requires, where appropriate, the enhancement of Otago's water quality. This reflects the community expectation that water quality within Otago will continue to support natural and human use values. The successful implementation of this policy would reflect improved habitat quality in the identified rivers.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1
Other methods: 15.2.3.1, 15.2.5.1 to 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2, 15.9.1.1, 15.9.1.2

7.6.3 To enhance the water quality in the following lakes so that the aquatic ecosystem is enhanced:

(a) Lake Hayes;
(b) Lake Johnson;
(c) Lake Tuakitoto;
(d) Lake Waipori; and
(e) Lake Waihola.

Explanation
The lakes identified above meet one or more of the criteria for enhancement in Policy 6.5.5 of the Regional Policy Statement for Otago.

Otago Regional Council monitoring has shown that the identified water bodies all have had nitrogen and phosphorus loadings exceeding that recommended (0.5 gN/m^3 and 0.05 gP/m^3 respectively – ANZECC Guidelines) as being suitable for aquatic ecosystems.

The enhancement of water quality to a standard which supports an enhanced aquatic ecosystem will be pursued through the management of point source and non-point source discharges.

Principal reasons for adopting
This policy is adopted to implement Policy 6.5.5 of the Regional Policy Statement for Otago, which requires, where appropriate, the enhancement of Otago's water quality. This reflects the community expectation that water quality within Otago will continue to support natural and human use values.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1
Other methods: 15.2.3.1, 15.2.5.1 to 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2, 15.9.1.1, 15.9.1.2

7.7 Policies for point source discharges

7.7.1 To promote discharges of contaminants to land in preference to water, where appropriate.

Explanation
The Otago Regional Council's preference for the discharge of contaminants to the environment is that they be discharged to land, including constructed wetlands, as opposed to water. It is recognised that the discharge of organic materials may benefit soil health. Some discharges to land, however, may still contaminate water resources, through runoff to surface waters, or through leaching to groundwater, or have adverse effects on soil. Such effects are addressed in Policy 7.7.2. The Regional Council may not promote discharges of contaminants to land in circumstances where those adverse effects could occur.

In any case involving the discharge of contaminants to land or to water, the requirements of this Plan will apply in managing their effects on the environment.

Principal reasons for adopting
This policy is adopted to avoid the adverse effects of discharges to water by promoting land disposal as a suitable alternative to such discharges in appropriate circumstances. This is particularly important to Kai Tahu, who find the discharge of human sewage to water culturally offensive.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.2 When considering the discharge of any contaminant to land, to have regard to:

(a) The ability of the land to assimilate the contaminant;
(b) Any potential for soil contamination; and
(c) Any potential for land instability.

Explanation
While the discharge of contaminants to land is often preferable to the direct discharge to water, the ability of the land to assimilate the discharge without adverse effects has its limits. Where those limits may be exceeded, there is a need to consider potential adverse effects on water quality, soil, and land stability. Subsequent policies in this section address the effects of these discharges on lakes and rivers. Discharges to land may also result in contaminants leaching to groundwater. Policy 9.4.18 addresses the management of land associated with groundwater protection. Policies in Chapter 10 address any adverse effects of discharges on wetlands.

The land resource can also be adversely affected by discharges:
(i) Where the presence of particular substances in the discharge can result in soil contamination; or

(ii) Where land becomes physically unstable and prone to slippage due to excessive ground moisture.

In the consideration of resource consents for the discharge of contaminants to land regard will be had to matters (a) to (c) of the policy.

In assessing activities regarding (b) and (c) of this policy, regard may be had to guidelines produced by the Department of Health and industry groups, as appropriate.

Principal reasons for adopting
This policy is adopted to ensure that any adverse effects from the discharge of contaminants to land are considered in relation to the effects of the same discharge to water.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1
Other methods: 15.5.1.1, 15.5.1.2

7.7.3 When considering applications for resource consents to discharge contaminants to water, to have regard to opportunities to enhance the existing water quality of the receiving water body at any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.

Explanation
There is the opportunity, particularly with new resource consents for existing discharges, to achieve an enhancement in water quality. This can occur when the consent holder re-examines the discharge activity and makes use of technological advances in the reduction, reuse, recycling, or treatment of contaminants. The Otago Regional Council will have regard to these opportunities when considering resource consents to discharge contaminants to water.

This policy applies to any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values. Opportunities to enhance water quality in the water bodies identified in Policies 7.6.1, 7.6.2 and 7.6.3 are of particular importance.

Principal reasons for adopting
This policy is adopted to ensure that opportunities are taken to achieve improved water quality in Otago's lakes and rivers. The policy reflects the importance of enhancing water quality to the region's people and communities.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.4 When considering applications for resource consents to discharge contaminants to water, or onto or into land in circumstances which may result in any contaminant entering water, to have regard to:

(a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;
(b) The financial implications, and the effects on the environment of the proposed method of discharge when compared with alternative means; and
(c) The current state of technical knowledge and the likelihood that the proposed method of discharge can be successfully applied.

Explanation
When considering the avoidance, remedy or mitigation of the adverse effects of the discharge of contaminants to land or water under a resource consent, the Otago Regional Council will consider matters identified in (a) to (c) in the policy. This ensures the recognition of any financial or technical constraint upon the adoption of alternative treatment or discharge methods, given the sensitivity of the receiving environment to the discharge.

Principal reasons for adopting
This policy is adopted to ensure that consideration is given to appropriate means for avoiding, remedying or mitigating the adverse effects of contaminants on water or land, to enable the most environmentally sound means to be adopted.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.5 When considering applications for resource consents, to have regard to the cumulative effects of discharges of contaminants and the assimilative capacity of the water body.

Explanation
Discharges of contaminants from all sources can exceed the capacity of the receiving water body to assimilate them. The opportunity to manage the cumulative effect of discharges will arise when considering applications for resource consents.

The taking of water can also influence the effect of discharges on a water body, by reducing the quantity of water available to assimilate contaminants. Although effects of takes on water quality are not considered to be an issue in terms of the Plan's scheduled minimum flows, consents considered under Policy 6.4.4, 6.4.6, 6.4.7 or 6.4.9(b) would need to have regard to any cumulative effects on assimilative capacity.

Regard will have to be had to existing discharges to the proposed receiving waters and the adverse effects they are having. Water quality monitoring will be critical in establishing the cumulative effects of discharges.

Principal reasons for adopting
This policy is adopted to ensure that the cumulative effects of discharges, the assimilative capacity of the water body and the effects of any takes of water considered under Policy 6.4.4, 6.4.6, 6.4.7 or 6.4.9(b), will all be considered when assessing applications for resource consents.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.6 Where a mixing zone is required for the discharge of contaminants to water, to ensure that it is limited to the extent necessary to take account of:

(a) The sensitivity of the receiving environment;
(b) The natural and human use values identified in Schedule 1;
(c) The natural character of the water body;
(d) The amenity values supported by the water body;
(e) The physical processes acting on the area of discharge; and
(f) The particular discharge, including contaminant type, concentration, and volume.

Explanation
Discharges of contaminants authorised under resource consents must meet any water quality standard set in respect of receiving waters after "reasonable mixing". Reasonable mixing occurs in a mixing zone, an accepted area of non-compliance. Matters (a) to (f) of the policy will be considered in the determination of the size of any mixing zone.

Principal reasons for adopting
This policy is adopted to provide guidance to the establishment of mixing zones such that their impact on natural and human use values is as small as possible.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.7 When considering any resource consent to discharge a contaminant to water, to have regard to any relevant standards and guidelines in imposing conditions on the discharge consent.

Explanation
The primary concern for the Otago Regional Council, in considering resource consents, is protecting the natural and human use values supported by water bodies. Guidelines applicable to Otago may assist in this task in terms of the development of resource consent conditions controlling the effects of any particular contaminant in the receiving waters.

This Plan does not set generic numerical standards for particular contaminants. Instead the Plan identifies specific natural and human use values and, prior to granting a discharge consent, Council must be satisfied that those values will not be compromised. Guidelines will be used when

applicable to the type of discharge and the nature of the receiving environment. These will be considered on a case by case basis.

Principal reasons for adopting
This policy is adopted to signal that standards and guidelines will be used as appropriate in imposing conditions on discharge consents in order to achieve the Plan's objectives. The application of standards will provide certainty to the person proposing to undertake the discharge as to the requirements for avoiding, remedying or mitigating adverse effects on the natural and human use values supported by the receiving water body.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.8 To require, as appropriate, that provision be made for review of the conditions of any resource consent for discharging a contaminant.

Explanation
Except as provided for by Policy 7.7.9(b) and (c), resource consents to discharge contaminants are issued with the expectation that the natural and human use values of the receiving water body will be maintained or enhanced. There are occasions however, where a consented discharge has unforeseen effects on water quality. In circumstances where the potential for an adverse effect is greatest, particularly due to the nature of the material discharged, review of the resource consent conditions may become necessary. Reviews of this nature are provided for by Section 128(1)(a)(i) of the Resource Management Act. To enable this review, a condition will be included, as appropriate, on any resource consent to discharge contaminants to water or land.

Principal reasons for adopting
This policy is adopted to provide an opportunity to review the conditions of resource consents within their duration, to address any unforeseen adverse effects on water quality resulting from the exercise of the resource consent. Such adverse effects may result from environmental or community change over time. Where a resource consent has been issued for a long term, it may be unacceptable to wait for the end of its duration to deal with any problem that has arisen.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.9 The duration of any new resource consent for an existing discharge of contaminants will take account of the anticipated adverse effects of the discharge on any natural and human use value supported by an affected water body, and:

(a) Will be up to 35 years where the discharge will meet the water quality standard required to support that value for the duration of the resource consent;

(b) Will be no more than 15 years where the discharge does not meet the water quality standard required to support that value but will progressively meet that standard within the duration of the resource consent;
(c) Will be no more than 5 years where the discharge does not meet the water quality standard required to support that value; and
(d) No resource consent, subsequent to one issued under (c), will be issued if the discharge still does not meet the water quality standard required to support that value.

Explanation
Resource consents to discharge contaminants may be issued for up to 35 years under the Resource Management Act. The duration of new resource consents for existing discharges under this Plan will be set having regard to the effect of the discharge on the natural and human use values supported by any affected water body, in accordance with (a) to (d) of this policy.

The maximum duration of any resource consent will be 35 years. Where the discharge is adversely affecting any natural and human use value that the water body supports, the duration will be less. This encourages the resource consent holder to investigate alternatives, that will improve the discharge, in order to meet the standards required to support the natural and human use value.

In recognition of financial and technical constraints on those proposing to undertake the discharge, a short duration resource consent, which does not exceed 5 years, may be granted in accordance with (c), in which time they must comply with the relevant water quality standards. Discharges that do not comply by the time the resource consent has expired will not be granted a further resource consent for the discharge. Another option is to make a commitment to meet the water quality standard required to support the affected value progressively within the duration of the resource consent. The duration of such resource consents would not exceed 15 years, in accordance with (b).

Principal reasons for adopting
This policy is adopted to give guidance for determining the appropriate duration of any resource consent to continue discharging contaminants. It will enable proper consideration of changes over time in the receiving environment, and to encourage, within technical and financial constraints, a reduction in the adverse effects of point source discharges on Otago's water bodies. This will assist in achieving the maintenance or enhancement of existing water quality.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1

7.7.10 With respect to discharges from any new stormwater reticulation system, or any extension to an existing stormwater reticulation system, to require:

(a) The separation of sewage and stormwater;
(b) Measures to prevent contamination of the receiving environment by industrial or trade waste; and
(c) The use of techniques to trap debris, sediments and nutrients present in runoff.

Explanation
In terms of the Plan's rules for permitted and discretionary activities for new discharges, or extensions to the catchment area of existing discharges from reticulated stormwater systems, the requirements of (a) to (c) will apply, as required.

Principal reasons for adopting
This policy is adopted to reduce the potential for contaminants to be present in new stormwater discharges. This is intended to mitigate the impact on the water quality of receiving water bodies in urbanised areas or other areas served by a stormwater reticulation system.

Rules: 12.4.2.1
Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2, 15.5.1.2

7.7.11 To promote the progressive upgrading of the quality of water discharged from existing stormwater reticulation systems.

Explanation
The Otago Regional Council will encourage the operator of any existing stormwater reticulation system to improve the quality of stormwater discharged from the system. Measures that can be taken to achieve this improvement include:
(a) The separation of sewage and stormwater;
(b) Measures to prevent contamination of the receiving environment by industrial or trade waste; and
(c) The use of techniques to trap debris, sediments and nutrients present in runoff.

Priority will be given to improving discharges to those water bodies where natural and human use values are adversely affected. Such measures may not be necessary where an existing discharge is having no more than a minor adverse effect on any natural or human use value supported by an affected water body.

Principal reasons for adopting
This policy is adopted to reduce the level of contaminants present in existing stormwater discharges. This is intended to mitigate the impact on the water quality of receiving water bodies in urbanised areas or other areas served by a stormwater reticulation system.

Rules: 12.4.2.1
Other methods: 15.2.5.1, 15.4.2.1, 15.4.2.2, 15.5.1.2

7.8 Policies for non-point source discharges

7.8.1 To promote the avoidance, remediation or mitigation of the adverse effects of the increased runoff of nutrients and sediments caused by:

(a) Agricultural land uses;
(b) Urban development;
(c) Forest harvesting and site preparation;
(d) Roading and tracking; and
(e) Any other activity that may generate increased runoff of sediment or nutrients.

Explanation
Non-point source discharges are the cause of much of the contamination entering Otago's lakes and rivers.

The Otago Regional Council will inform those involved with the activities identified in the policy of the actions that can be undertaken to reduce the level of nutrients or sediment present in runoff. Actions that would be promoted would vary, depending on the nature and scale of the activity and the land concerned, but could include any of the following:

- Facilitation of communication between interested groups;
- Development of environmental farm plans, including the establishment of a nutrient budget, and the prevention of inappropriate stock access to water bodies;
- Development of forest management plans;
- Encouragement of self-monitoring programmes;
- Riparian planting and management; and
- Including relevant provisions in district plans, and relevant conditions on district council resource consents.

The Council also has a role in enforcing compliance with the duty of any person, under Section 17 of the RMA, to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person.

Principal reasons for adopting
This policy is adopted to recognise that the adverse effects of particular land use activities on water quality can be reduced by changing some management practices and implementing new ones. Education and promotion will be the most effective way of bringing about more desirable management practices.

Other methods: 15.2.3.1, 15.2.7.1, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2

7.8.2 To require that all practical alternative locations for the storage of hazardous substances have been considered before such storage occurs in close proximity to any lake or river or to mean high water springs; and, if it is not practical to locate elsewhere, to require that appropriate risk management contingencies are put in place.

Explanation
Although the use of hazardous substances may provide benefits to the community, the storage of such substances close to surface water also represents a risk of contamination through spillage or leakage. Any person intending to store hazardous substances in close proximity to any lake or river, or to mean high water springs, will require land use consent from the relevant city or district council. The district plan rules of those councils will specify the land to which the above requirements will apply.

When considering the location of new facilities for the storage of hazardous substances in close proximity to any lake, river or mean high water springs, the applicant should demonstrate that there are no other, more suitable, less sensitive locations available. If a less sensitive location is not practical, then appropriate design, construction and management practices must be established to minimise the risk of any hazardous substance entering water. For existing facilities where it would be unreasonable to require relocation, appropriate spill containment measures must be established to ensure the lake, river or coastal environment is safeguarded.

Principal reasons for adopting
This policy is adopted to avoid the discharge into water where hazardous substances are inappropriately stored. There is an increased likelihood of such contamination where the storage occurs in close proximity to surface water bodies. Such discharges will adversely affect water quality and the ability of the water body to support natural and human use values.

Other methods: 15.2.7.1, 15.4.2.2

7.8.3 To promote the use of contingency plans for the prevention, containment and recovery of the accidental spill of any hazardous substance which may adversely affect water quality.

Explanation
In the development or modification of any industrial, commercial or agricultural facility where there is potential for the spillage of substances which could contaminate water, the Otago Regional Council will promote the adoption of a spills contingency plan. Such plans will involve four key elements:

(a) Appropriate handling procedures will be encouraged to avoid accidental spills;
(b) Mechanisms, such as bunding, will be encouraged to contain spills;
(c) Appropriate clean-up and dispersal actions will be identified to remedy the effects where containment is not achieved; and
(d) Proactive education.

The use of contingency plans will be promoted to city and district councils, industry groups, and the developers or owners of the identified facilities.

Principal reasons for adopting
This policy is adopted to reduce the incidence and severity of accidental spills of contaminants into, upstream of, or adjacent to, any water. This is

important as such spills may undermine all previous efforts to maintain or enhance water quality.

Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1, 15.5.1.2

7.8.4 To support the coordination of measures to remedy or mitigate the adverse effects associated with accidental spills which could potentially contaminate water.

Explanation
The accidental spill of any contaminant that may adversely affect water quality will be remedied or mitigated by the clean-up and dispersal of the spilled contaminant. City and district councils, the Fire Service and others may be involved in spill clean-up operations. The Otago Regional Council will support the coordination of the appropriate response to any accidental spill through the provision of advice on possible disposal or treatment options.

Principal reasons for adopting
This policy is adopted to ensure the appropriate agencies become involved in clean-up operations in the event of a spill of contaminants and that the clean-up operations themselves do not lead to the contamination of water.

Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1, 15.5.1.2

7.8.5 Except in the case of a dam constructed to store contaminants, to avoid the damming or diversion of water over contaminated land where it would result in contamination of water or, where avoidance is not practicable, to require the removal or treatment of the contaminated land.

Explanation
There is the potential for adverse effects on water quality where land contaminated by hazardous substances comes into contact with water. Such effects may occur:
(a) Within a reservoir created by the damming of a water body;
(b) Within diverted water where the water passes over contaminated land; or
(c) Downstream of that reservoir or diverted water.

When considering any resource consent for new proposals for damming or diversion of water, the Otago Regional Council must be satisfied that the activity would not result in water being contaminated by its coming into contact with contaminated land. The Council maintains a register of contaminated sites in Otago.

One practical method of managing potential adverse effects from contaminants in a dam constructed to store contaminants, such as a mine tailings dam, is to immerse the contaminants beneath water in a controlled environment. This policy therefore does not apply and Policy 7.8.6 provides for such activities.

Principal reasons for adopting
This policy is adopted to prevent degradation of water quality caused by contaminated land coming into contact with water as a result of the damming or diversion of water. Mining tailings dams are exempt from this policy because that activity sometimes needs to immerse contaminants under water as one practicable method of managing potential adverse effects.

Rules: 12.3.4.1

7.8.6 To require the holder of any consent for a dam constructed for the storage of contaminants to completely remedy any adverse effect of the failure or overtopping of the dam structure, either during or after its construction.

Explanation
Where a resource consent is required for either:
(a) the damming of water; or
(b) the storage of hazardous substances,
for the purpose of establishing a tailings dam, the consent authority will require the person erecting the dam to plan for and provide measures, including bonds under Section 108 of the Resource Management Act, for the complete remediation of any loss or damage caused by the uncontrolled release of contaminants. There is a risk of such releases where the tailings dam constructed to store the contaminants fails or is overtopped, either during or after its construction.

Principal reasons for adopting
This policy is adopted to provide for the complete remediation of adverse effects arising from the failure or overtopping of a tailings dam.

Rules: 13.2.3.1, 13.3.2.1
Other methods: 15.2.4.1, 15.2.7.1, 15.3.4.1, 15.4.2.2, 15.5.1.1, 15.5.1.2

7.9 Anticipated environmental results

7.9.1 Water quality is enhanced so that it is suitable for contact recreation or aquatic life, where there is:

(a) A high public interest in, or use of the water; or
(b) A particular Kai Tahu interest in the water; or
(c) A particular value to be maintained or enhanced; or
(d) A direct discharge containing human sewage or wastes from commercial or industrial activities.

7.9.2 Existing water quality is maintained.

7.9.3 People and communities have access to suitable supplies of high quality water for their present and reasonably foreseeable needs.

7.9.4 Alternative receiving environments are adopted in preference to contaminants being discharged to water.

7.9.5 Appropriate receiving environments are utilised for any discharge of contaminants.

7.9.6 Land use practices that are sustainable in terms of water quality requirements are utilised.

7.9.7 Hazardous substances and other contaminants do not enter surface water bodies and adversely affect water quality.

7.9.8 There is no increase of sediment or nutrient loads in surface water bodies resulting from the use, development or protection of land.

7.9.9 Water quality is maintained or enhanced in order to support:

(i) Aquatic life fit for human consumption; and
(ii) Mauri of water and mahika kai values.

Note that anticipated environmental results 7.9.1 to 7.9.4 and 7.9.6 to 7.9.9 apply to water or water bodies other than those water bodies constructed to receive contaminants.

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

8

The Beds and Margins of Lakes and Rivers

8.1 Introduction

The beds and margins of Otago's lakes and rivers are complex and dynamic natural systems. These systems provide diverse habitats for plants and animals, valued mahika kai, and opportunities for recreational use. Their outstanding natural features and landscapes are an integral part of the natural character of the region. The many waahi taonga and waahi tapu sites found on Otago's lake and river margins are of considerable spiritual significance to Kai Tahu. Many pre-European sites may be of archaeological importance. Beds and margins of lakes and rivers also contain a wealth of post-1840 heritage values and resources.

The beds and margins of lakes and rivers are currently used by Otago's people and communities for recreational activities, primary production, navigation, hydro-electric power generation and flood mitigation. Mineral resources contained within these areas, particularly aggregate and gold, are extracted. Residential, commercial and industrial uses may occur in or close to the beds of lakes and rivers. Development also occurs in relation to the need for roads, rail, energy transmission, tele-communications and other services to cross them.

The potential exists for conflicts in resource use on the beds and margins of Otago's lakes and rivers because of the dynamic nature of water flow, sediment transport and flooding, and the diverse range of human activities occurring in these areas. There is therefore a need for management of human activities on the beds and margins of lakes and rivers to avoid, remedy or mitigate their adverse effects, including cumulative effects.

This Plan provides policy and rules in relation to the bed of any lake or river for:

- the use, erection, alteration, extension, removal or demolition of structures;
- bed disturbance;
- the introduction of vegetation;
- the deposition of any substance;
- drainage or reclamation; and
- the removal of any plants.

Appropriate use and management of riparian areas is of importance in the achievement of better water quality and aquatic habitats, and for the maintenance and enhancement of amenity values of lake and river environments. The Plan provides for an integrated approach to riparian management through application of the complementary roles of the regional council and city and district councils.

District plans provide for the integrated management and control of any actual or potential effects of the use, development or protection of land. As such they make an important contribution to riparian management, through esplanade and access provisions relating to land subdivision, and in the control of land use activities. The Regional Policy Statement for Otago and this Plan provide policy guidance to city and district councils in their management of the effects of activities in riparian areas. The Otago Regional Council also has the option of introducing controls on land use where its policy objectives are not otherwise met.

Note: **1.** The provisions in this chapter are in addition to those in Chapter 5, which seek to maintain or enhance the natural and human use values supported by lakes and rivers.
2. Chapter 10 provides for the management of wetlands.

8.2 Issues

8.2.1 Changes in the nature of the flow of water and sediment caused by activities in, on, under or over the bed or margin of a lake or river, can adversely affect:

(a) The stability and function of existing structures;
(b) The bedform of the lake or river;
(c) Bed and bank stability; and
(d) Flood carrying capacity.

Explanation
The following activities in, on, under or over the bed or margin of a lake or river may alter the hydrological or sediment processes which act within a lake or river:
(a) The use, erection, alteration, extension, removal or demolition of structures;
(b) Bed disturbance;
(c) The introduction, disturbance or removal of vegetation;
(d) The deposition of any substance; and
(e) Drainage or reclamation of the bed.

Such alteration can arise through the obstruction or redirection of water flow or sediment movement. These changes may exacerbate flooding by reducing channel efficiency, or may cause or worsen bed and bank instability by accelerating erosion or sedimentation. The stability or function of structures downstream on the bed or bank may also be compromised as a consequence, particularly where erosion threatens the supports of a structure. The activities may also lead to a change in the physical nature of the water body's bed (bedform), which may be undesirable if it adversely affects other uses.

Objectives: 8.3.1, 8.3.3
Policies: 8.3.2, 8.4.1, 8.6.1, 8.6.2, 8.6.4, 8.7.1, 8.8.1

8.2.2 The disturbance of the bed of lakes and rivers has the potential to degrade water quality by reducing the clarity of water.

Explanation
Bed disturbance includes any excavation, dredging, drilling, tunnelling, and any intentional widening, deepening or alteration of the course of a water body. Intensive use by livestock can also disturb the bed and degrade water quality. Where the bed disturbance occurs in the wet bed, that part of the bed of a lake or river which is covered by water, sediment will be mobilised. The

mobilisation of sediment, depending on the scale of the activity, can reduce the clarity of the water by increasing its turbidity. Reduced clarity of water can adversely affect natural and human use values supported by the lake or river, or other users of the water body.

Objectives: 8.3.2
Policies: 8.6.1 to 8.6.3

8.2.3 The erection of a dam in, or the reclamation of, the bed of a lake or river can result in the loss of natural and human use values through their inundation or burial.

Explanation
Lakes and rivers are dammed for a number of reasons ranging from the supply of stock drinking water to the generation of hydro-electric power. Although it can lead to positive community benefits, the damming of water drowns the existing natural and human use values upstream of the dam structure, with the scale of the inundation being dependent on the size of the dam structure and the topography of the surrounding land. Similarly, although the infilling of a bed of a lake or river provides reclaimed land, which may lead to community benefits, it causes similar loss of values through burial. Given the importance of these values to Otago's people and communities, their loss through inundation or displacement may be of concern.

Objectives: 5.3.1 to 5.3.7
Policies: 5.4.10, 8.4.2, 8.5.2, 8.8.1

8.2.4 The failure or overtopping of a dam in the bed of a lake or river can result in the loss of or damage to:

(a) The health and safety of people and communities;
(b) Property and infrastructure; and
(c) Natural and human use values,
should it occur during or after the dam's erection.

Explanation
Although dams lead to positive benefits to people and communities, they often hold large quantities of water which can lead to extensive damage if there is an uncontrolled release. Such a release could occur through a failure of the structure, or an overtopping caused by, for example, a landslide into the reservoir. The damage, which occurs largely downstream of the dam, may include loss of life, property, infrastructure, or the natural and human use values supported by the affected water bodies. The risk of damage depends on the size of the dam structure, the volume of water impounded and topography.

Objectives: 8.3.4
Policies: 8.5.3

8.2.5 Otago's people and communities are subject to a significant flood hazard, which can be exacerbated by land use activities in, on, under or over the bed and margins of lakes and rivers.

Explanation
Significant flooding can occur during periods of very high flow in many of Otago's lakes and rivers. Defences against water have been constructed to protect the region's people and communities from this flooding hazard for over a century. Such works are ongoing and involve the construction of new defences, such as stopbanks, and the maintenance or repair of those that already exist. Land use activities undertaken in close proximity to defences against water have the potential to adversely affect the manner in which they were designed to function, increasing the flooding risk.

Objectives: 8.3.1, 8.3.3
Policies: 8.4.1, 8.5.4 to 8.5.6

8.3 Objectives

8.3.1 To maintain:

(a) The stability and function of existing structures located in, on, under or over the bed or margin of any lake or river;
(b) The stability of the bed and bank of any lake or river; and
(c) The flood and sediment carrying capacity of any lake or river.

Explanation
Activities in, on, under or over the beds and margins of lakes and rivers have the potential to modify hydrological and fluvial processes through the obstruction or redirection of water or sediment flow. Such changes have the potential to exacerbate flooding, erosion or sedimentation hazards, and adversely affect the stability or function of structures.

Principal reasons for adopting
This objective is adopted to recognise that activities occurring in, on, under or over the bed or margins of lakes and rivers can exacerbate or create hazards by changing hydrological or fluvial processes. It is important that such hazards are avoided due to their potential threat to structures located in close proximity to the bed, and to Otago's people and communities generally.

Policies: 8.4.1, 8.5.3 to 8.5.6, 8.6.2, 8.6.4, 8.7.1, 8.7.2, 8.8.1

8.3.2 To minimise reduction in water clarity caused by bed disturbance.

Explanation
Activities in the bed or margins of lakes and rivers which involve disturbance of the bed can increase the turbidity of the water. This occurs where sediments in the bed are mobilised and are suspended in the water, thereby reducing water clarity. Any reduction in water quality caused by bed

disturbance can adversely affect the natural and human use values supported by the water body and other users of water.

Principal reasons for adopting
This objective is adopted to ensure that activities involving bed disturbance are managed to minimise reductions in water clarity. Such reductions are generally undesirable due to the potential to adversely affect the values and uses supported by the water body.

Policies: 8.6.1 to 8.6.3

8.3.3 To maintain the integrity of existing defences against water.

Explanation
Defences against water, such as stopbanks, have been used extensively throughout Otago to reduce the threat of flooding. These defences are an integral component of the community's response to flood events. It is important that these works are able to continue to operate effectively.

Principal reasons for adopting
This objective is adopted to avoid or minimise the risk of flooding which adversely affects Otago's people and communities. This risk may be increased where land use activities threaten the integrity or function of existing defences against water.

Policies: 8.5.5, 8.5.6

8.3.4 To remedy any adverse effect resulting from the failure or overtopping of any dam structure.

Explanation
Damage from dam failure or overtopping needs to be avoided but, in the event that it occurs, appropriate remedial actions will be required. Due to the risk involved, it is necessary to plan for the possible need to remedy any loss or damage caused.

Principal reasons for adopting
This objective is adopted to ensure that loss or damage that occurs as a result of dam failure or overtopping will be remedied.

Policies: 8.5.3

8.4 General policies

8.4.1 When managing activities in, on, under or over the bed or margin of any lake or river, to give priority to avoiding changes in the nature of flow and sediment processes in those water bodies, where those changes will cause adverse effects:

(a) On the stability and function of existing structures located in, on, under or over the bed or margin of any lake or river;

(b) Arising from associated erosion or sedimentation of the bed or margin of any lake or river, or land instability; or
(c) Arising from any reduction in the flood carrying capacity of any lake or river.

Explanation
This policy recognises that activities in, on, under or over the bed or margins of a lake or river may obstruct or redirect the flow of water or sediment, thereby adversely affecting structures or exacerbating a natural hazard, such as flooding, erosion, land instability or sedimentation. The potential for such effects needs to be taken into account when preparing or reviewing plans under the Resource Management Act and when considering applications for resource consents for activities in, on, under or over the bed or margins of lakes and rivers. Where changes in flow and sediment processes are considered to be unavoidable, a resource consent may be declined or, if granted, may be subject to conditions requiring unavoidable adverse effects to be remedied or mitigated. In the case of diversion, reclamation or damming, appropriate compensation may be required as provided for by Policies 6.5.6 and 8.4.2.

Principal reasons for adopting
This policy is adopted to ensure that the natural and physical resources of the beds and margins of lakes and rivers are protected from the adverse effects of the modification of flow and sediment processes.

Rules: 13.1.2.1, 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1
Other methods: 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1

8.4.2 Financial contributions, or works or services may be required to offset, remedy or mitigate any unavoidable adverse effect of damming or reclamation on:

(a) Any natural or human use value identified in Schedule 1;
(b) The natural character of the water body;
(c) Any amenity value supported by the water body; or
(d) Any heritage value associated with any affected water body.

Explanation
The damming or reclamation of the bed or margins of Otago's lakes and rivers can result in unavoidable adverse effects on the natural and human use values supported by the water body. Where such effects occur, financial contributions, or works or services, may be required as a condition of a resource consent to offset, remedy or mitigate the effects. The amount and type of financial contribution, or the type of work or service, will depend on the nature of the activity and will relate to the adverse effects on the natural and human use values. Financial contributions are detailed in Chapter 17 of this Plan. Recognition will be given to the extent to which resource use and development has modified the water body, and the positive effects of the proposed activity will be taken into account, when assessing any requirement for financial contributions, or works or services.

Principal reasons for adopting
This policy is adopted to ensure provision is made to either offset, remedy or mitigate any unavoidable adverse effect of damming or reclamation activities on the beds and margins of lakes and rivers.

Rules: 12.3.3.1, 12.3.4.1, 13.2.3.1, 13.3.2.1, 13.5.3.1
See also: Chapter 17; Policies 6.5.6, 10.4.4

8.5 Policies applying to structures

8.5.1 To require, where necessary, desirable and practicable, any structure in or on the bed of any lake or river to provide for fish migration through or past it, or alternative remedial measures where fish migration is not practicable.

Explanation
Where the Otago Regional Council requires a resource consent for a structure, it will consider requiring the person erecting or placing the structure to provide means for the upstream and downstream passage of fish. This requirement is only necessary where the structure is likely to restrict fish passage. There are situations where passage may not be necessary or desirable, for a variety of reasons, and these need to be assessed on a case-by-case basis. Although it will be sought in the first instance, it may not always be possible to provide an effective fish pass given the nature of the structure. In such circumstances, the Council may require remedial actions. Those structures erected under a permitted activity rule of this Plan will still have to comply with the requirements of the Freshwater Fisheries Regulations 1983 with respect to fish passage, administered by the Department of Conservation.

Principal reasons for adopting
This policy is adopted to provide for the unimpeded migration of fish, where necessary, desirable and practicable, or alternative remedial measures where fish migration is not practicable. Many of the region's native fish species, for example eels, and introduced trout and salmon, migrate to or from the sea, or up and down water bodies. Because these fish species require different aquatic habitats at different life stages, unimpeded access is essential to the survival of local fish populations.

Rules: 13.2.2.1, 13.2.3.1

8.5.2 To prohibit the erection of a dam on the bed of lakes or rivers in parts of the following catchments in accordance with Schedule 6:

(a) Kawarau River;
(b) Lake Wanaka and Upper Clutha River/Mata-Au;
(c) Pomahaka River;
(d) Waipahi River; and
(e) Lower Clutha River/Mata-Au.

Explanation
This policy provides for the prohibition of damming in the identified catchments. Schedule 6 provides further detail in respect of the water bodies within these catchments on which dams will be prohibited. Regarding the Pomahaka River and Waipahi River catchments, and the Lower Clutha River/Mata-Au, the prohibition on damming does not extend to damming for stockwater supply purposes.

Principal reasons for adopting
The Water Conservation (Kawarau) Order ~~(refer Schedule 11)~~ and the Lake Wanaka Preservation Act ~~(refer Schedule 14)~~ prohibit the damming of water. The Pomahaka River and Tributaries and Lower Clutha River/Mata-Au Local Water Conservation Notice, deleted by this Plan, also prohibited the damming of water. It is therefore appropriate, for consistency, to prohibit the damming of the same waters within this Plan.

Rules: 12.3.1.1 to 12.3.1.3

Decision: E1e

8.5.3 To require the holder of any resource consent for a dam on the bed of a lake or river to remedy any adverse effect attributable to the failure or overtopping of the dam structure, either during or after its construction.

Explanation
Where the Otago Regional Council requires a resource consent for:
(a) The damming of water; or
(b) The erection of a dam;
it will require the person erecting the dam to plan for and provide appropriate measures to remedy any loss or damage caused by the failure or overtopping of the dam at any stage. These measures may include:
(i) Bonds, as provided for by Section 108 of the Resource Management Act;
(ii) Insurance; or
(iii) Other appropriate means.

Remedial action will be required only where adverse effects of any failure or overtopping can be attributed to the dam, as opposed to those that may have occurred in the absence of the dam.

Required remediation may be assessed as appropriate having regard to the necessity and practicability of reinstating prior conditions, and alternative options that may compensate for losses suffered by the affected community.

Principal reasons for adopting
This policy is adopted to provide for the remediation of adverse effects arising from the failure or overtopping of a dam. The policy also provides an incentive for dam owners to undergo ongoing risk management.

Rules: 12.3.3.1, 12.3.4.1, 13.2.3.1, 13.3.2.1

8.5.4 To consider the removal of any abandoned structure in, on, under or over the bed of a lake or river which can be shown to significantly:

(a) Exacerbate the effects of flooding or erosion;
(b) Impede or prevent fish passage, where such passage is desirable;
(c) Threaten the health or safety of people or communities; or
(d) Degrade amenity values.

Explanation
The holder of the relevant resource consent authorising an abandoned structure, or its owner, may be required to remove the structure where it is shown to be:

(i) Unable to withstand expected hazard events, such as floods or erosion;
(ii) Capable of significantly worsening flood or erosion situations, including bank instability, either directly or because of lack of maintenance;
(iii) Impeding or preventing fish passage where such passage is required, given the vulnerability of some isolated populations of native fish;
(iv) Unstable, or significantly threatening public health and safety in some other way; or
(v) Degrading scenic values associated with, or recreational opportunities provided by, the water body.

This removal will be required either through a condition of a resource consent, or through an enforcement order where there is no such condition or resource consent. Such removal will be subject to this Plan's provisions concerning discharges and bed and margin disturbance. The community may need to be consulted about abandoned structures prior to their removal.

Where such structures are of heritage value and are causing adverse effects associated with flooding, erosion, or threats to the health and safety of people and communities, their removal may not be necessary as long as those effects are adequately remedied or mitigated.

Principal reasons for adopting
This policy is adopted to avoid any of the adverse effects caused by abandoned structures within the bed of a lake or river through their removal. The removal of sites, buildings, places or areas of significant heritage value, such as historic wing dams and revetments may not be required, as they are significant cultural resources and are valued for their amenity.

Rules: 13.4.2.1

8.5.5 In considering the construction, reconstruction or modification of defences against water, to have regard to:

(a) The effectiveness of the proposed work; and,
(b) The need for the defence; and,
(c) Any effect on existing defences.

Explanation
Defences against water are important in Otago as they mitigate flood and erosion hazards. Prior to constructing any new defence, or reconstructing or modifying an existing defence, consideration must be given to whether hazard mitigation is actually required, and how the structure will perform in relation to existing defences against water.

Principal reasons for adopting
This policy is adopted to ensure that flood or erosion protection structures are constructed in a coordinated and integrated manner, and do not compromise any other flood or erosion response. This will result in the effective performance of such structures and a reduction in the potential adverse effects of any flood or erosion event.

Rules: 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.6.3.1, 14.3.2.1, 14.4.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.3.3.1, 15.3.3.2

8.5.6 To manage activities that have the potential to adversely affect existing defences against water.

Explanation
Defences against water are often located in or on the bed or margins of lakes and rivers to protect Otago's people and communities from the adverse effects of flooding. Activities undertaken on, or in close proximity to such works have the potential to adversely affect the manner in which they were designed to function.

Principal reasons for adopting
This policy is adopted to maintain the integrity of defences against water located in or on the bed or margins of lakes and rivers. If these works are able to operate as intended, the risk of flooding adversely affecting Otago's people and communities will be reduced.

Rules: 13.2.2.1, 13.2.3.1, 13.3.2.1, 13.4.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.3.3.1, 15.3.3.2

8.6 Policies applying to bed or margin disturbance

8.6.1 In managing the disturbance of the bed or margin of any lake or river, to have regard to any adverse effect on:

(a) The spawning requirements of indigenous fauna, and trout or salmon;
(b) Bed and bank stability;
(c) Water quality;
(d) Amenity values caused by any reduction in water clarity; and
(e) Downstream users.

Explanation
Bed disturbance can lead to a change in bedform, or a reduction in clarity downstream, and may consequently adversely affect fish spawning, bed and bank stability, water quality, amenity values and downstream users. When considering activities that would result in bed disturbance, it is important to have regard to the potential for these adverse effects. Policy 5.4.2 manages any adverse effects on natural and human use values.

Principal reasons for adopting
This policy is adopted to provide recognition that there are natural and human use values and other uses of water that are particularly susceptible to the physical changes caused by disturbance of the bed. Such values and uses will be maintained where the adverse effects of bed disturbance are avoided, remedied or mitigated.

Rules: 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1
Other methods: 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2
See also: Chapter 7

8.6.2 To promote best management practices for activities that occur within or adjacent to the bed of lakes and rivers in order to avoid, remedy or mitigate any adverse effect.

Explanation
A variety of land use activities can occur within or adjacent to the beds of lakes and rivers including grazing, cultivation, forestry, river works and pest control. Due to their proximity to such water bodies, these activities have the potential to adversely affect the natural and human use values supported by them. The Otago Regional Council has prepared best management practices, in conjunction with Federated Farmers, the forestry industry, government departments and the Otago Fish and Game Council, for the above activities. Some of these are included in the Council's "Riparian Management" document. The Otago Regional Council will encourage the adoption of these and other best management practices that avoid, remedy or mitigate any adverse effects on the environment.

Principal reasons for adopting
This policy is adopted to encourage the voluntary use of best management practices by those undertaking activities within the bed or margins of lakes and rivers. The best management practices bring together the best information available on how to minimise the impact of such activities on water resources.

Other methods: 15.2.7.1, 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.5.1.1, 15.5.1.2
See also: Chapter 7

8.6.3 To provide for small suction dredge mining operations in rivers without the need for a resource consent, except in those water bodies identified in Schedule 7.

Explanation
Suction dredge mining involves the disturbance of sand and gravel in the wet bed of rivers and can cause significant adverse effects. Suction dredging operations that comply with Rule 13.5.1.7 will not give rise to any significant bed disturbance. However, some Otago rivers, identified in Schedule 7 of this Plan, have a unique value for fish spawning and rearing, are important for water supply purposes or are particularly sensitive to bed damage.

Principal reasons for adopting
This policy is adopted to avoid unnecessary constraint on suction dredging operations that involve minimal bed disturbance, while recognising that tighter restriction should apply where water bodies are particularly sensitive to such disturbance.

Rules: 13.5.1.7

8.6.4 To ensure that any extraction of bed material from the bed of any lake or river is within the sustainable yield of the lake or river system.

Explanation
Bed material, particularly sand and gravel, is an important resource of Otago's lakes and rivers. Over-extraction of such material can result in changes in river morphology and lead to adverse effects. Over-extraction occurs where the total quantity of bed material removed exceeds the quantity naturally replenished. Therefore, when considering the extraction of bed material, regard will be had to the location of the extraction and the cumulative volume of material removed from a particular water body, to ensure that extraction is at a sustainable level.

Principal reasons for adopting
This policy is adopted to ensure that the extraction of bed material from a lake or river is sustainable. This will ensure that long term effects caused by over-extraction, such as lowering the level of the bed and bank erosion, are avoided.

Rules: 13.5.1.6, 13.5.2.1, 13.5.3.1
Other methods: 15.2.8.3

8.6.5 With respect to the Kakanui-Kauru Alluvium and Shag Alluvium groundwater aquifers, to require that any extraction of material from the bed of a lake or river does not adversely affect the aquifer.

Explanation
When considering the extraction of bed material from the Kakanui and Shag Rivers, or other surface water bodies in close proximity to the Kakanui-Kauru Alluvium and Shag Alluvium Aquifers, regard must be had to the effect of that extraction on the groundwater resource. The Kakanui-Kauru Alluvium and Shag Alluvium Aquifers are identified on Maps C10 and C11.

Principal reasons for adopting
This policy is adopted to maintain the volume and yield of groundwater from the Kakanui-Kauru Alluvium and Shag Alluvium Aquifers. Extraction of bed material from surface water bodies can lower the watertable of these aquifers due to the close hydrological connection between the surface water and groundwater. This will adversely affect groundwater users.

Rules: 13.5.1.6, 13.5.2.1, 13.5.3.1
See also: Chapter 9

8.7 Policies applying to vegetation

8.7.1 To promote the creation, retention and enhancement of appropriate riparian vegetation where it will:

(a) Maintain or enhance water quality, through the interception of non-point source contamination from adjacent land;
(b) Enhance the aquatic ecosystems within a water body, and the habitat for flora and fauna on the margins;
(c) Maintain or enhance the natural character of lakes and rivers and their margins;
(d) Maintain or enhance amenity values;
(e) Avoid, remedy or mitigate the adverse effects arising from flooding or erosion;
(f) Be unlikely to have a significant adverse effect on desirable species already present, or adjacent to, and downstream from, that riparian vegetation;
(g) Be unlikely to restrict existing public access along the beds and margins of Otago's lakes and rivers;
(h) Be unlikely to have a significant adverse effect on the heritage value of any site, building, place or area;
(i) Be unlikely to impose any significant operational constraints on existing network utilities; or
(j) Enhance mahika kai values.

Explanation
Appropriate riparian vegetation includes:
(a) Any plant indigenous to the region;
(b) Any introduced non-invasive plant, planted for flood or erosion control;
(c) Any traditional mahika kai plant used by Kai Tahu for any purpose; and
(d) Any introduced non-invasive plant, that contributes to the natural character of the lake or river.

This vegetation does not include plants identified in the Pest Management Strategy for Otago 2001, or crack or grey willow which are likely to increase the risk of flooding through impeding flood waters.

This policy will be implemented through district planning mechanisms and through this Plan promoting riparian land occupiers and others to assess opportunities for the creation, retention and enhancement of riparian vegetation. To this end, the Otago Regional Council has released guidelines, in the document "Riparian Management", which provide information on planning a revegetation programme, fencing and site preparation, species selection and planting methods.

Principal reasons for adopting
This policy is adopted to encourage Otago's people and communities to retain and plant riparian vegetation where it will achieve the specified outcomes. Appropriate riparian vegetation acts as a buffer between a lake or a river and the adjacent land uses by reducing the amount of nutrients and other contaminants entering the water, through filtration, and plant and microbial uptake. It also contributes to habitat values as an integral component of the natural character of many Otago lakes and rivers, and can assist bank stability and the mitigation of flooding or erosion hazards.

Other methods: 15.2.8.1 to 15.2.8.3, 15.4.3.2, 15.6.1.1
See also: Chapter 7

8.7.2 To prohibit the introduction of any plant included in any pest management strategy in force in Otago, to any part of the bed or water of any Otago lake or river.

Explanation
The following aquatic plants are undesirable in or on the beds, or in the water of Otago's lakes and rivers and are identified as requiring management in the Pest Management Strategy for Otago 2001:
(a) Lagarosiphon Lagarosiphon major
(b) Eel Grass Vallisneria spiralis
(c) Egeria Egeria densa
(d) Hornwort Ceratophyllum demersum
(e) Hydrilla Hydrilla verticillata
(f) Sagittaria Sagittaria graminea ssp platyphylla
(g) Spartina Spartina anglica
(h) Salvinia Salvinia molesta
(i) Water Hyacinth Eichornia crassipes
(j) Water Lettuce Pistia stratiotes

This Plan prohibits the introduction of any of the identified species to the bed or water of any lake or river.

Principal reasons for adopting
This policy is adopted to provide for the management of aquatic pest plants consistent with the Pest Management Strategy for Otago 2001. This will assist in protecting the natural character of water bodies where the identified aquatic pest plants are not already present.

Rules: 13.6.1.1

8.8 Policies applying to reclamation and deposition

8.8.1 To consider practical alternatives to:

(a) The reclamation of the bed of any lake or river; and
(b) The deposition of any substance in, on or under, the bed or margin of any lake or river.

Explanation
When considering the reclamation of the bed, or activities that would result in deposition, it is important to have regard to alternatives, including use of other land or deposition away from the bed or margin of the lake or river.

Principal reasons for adopting
This policy is adopted to ensure that reclamation or the deposition of substances in or on the beds or margins of lakes and rivers only takes place where it is necessary. This approach recognises that reclamation or deposition should be discouraged wherever possible, as these activities can have significant adverse effects on the natural and human use values of lakes and rivers, or create or exacerbate hazards.

Rules: 13.5.3.1
Other methods: 15.2.8.1 to 15.2.8.3, 15.4.2.1, 15.4.2.2

8.8.2 To require only cleanfill be used to create any reclamation of the bed of a lake or river.

Explanation
The Otago Regional Council will only allow cleanfill to be used to create a reclamation of the bed of a lake or river. Cleanfill includes natural and other materials which are not subject to biological or chemical breakdown. Even where cleanfill is used, the reclamation may still result in temporary discharges to water. These discharges will be subject to the provisions of this Plan.

Principal reasons for adopting
This policy is adopted to reduce the discharge of contaminants from material used to create reclamations. This is best achieved by requiring that material be cleanfill, as this reduces the contaminants which are likely to, or have the potential to, adversely affect water quality in Otago's lakes and rivers.

Rules: 13.5.3.1
See also: Chapter 7

8.9 Anticipated environmental results

8.9.1 Activities which alter the existing nature of natural physical processes do not exacerbate natural hazards or threaten the integrity of structures.

8.9.2 Physical changes to bedform of lakes and rivers and water clarity caused by bed disturbance are minimised.

8.9.3 Existing fish passage in lakes and rivers is not inhibited by structures.

8.9.4 Otago's people and communities are protected from the adverse effects of flooding.

8.9.5 The water quality of lakes and rivers is not adversely affected by the disturbance and reclamation of the bed.

8.9.6 Gravel extraction occurs within the sustainable yield.

8.9.7 Existing areas of riparian vegetation are retained or enhanced, and areas of new riparian vegetation are created, where they provide an environmental benefit.

8.9.8 The habitat of threatened indigenous aquatic fauna and flora is protected.

8.9.9 Hazard mitigation works, depositions, or reclamations associated with the beds of lakes or rivers occur only where they are necessary.

8.9.10 The unavoidable adverse effects of inundation resulting from the damming of water are remedied.

8.9.11 Any damage caused by failure or overtopping of a dam structure is remedied.

8.9.12 Damming of water does not occur in the following catchments except as provided for by legislation or Rule 12.3.1.3 of this Plan:

(a) Kawarau River;
(b) Lake Wanaka and the Upper Clutha River/Mata-Au;
(c) Pomahaka River;
(d) Waipahi River; and
(e) Lower Clutha River/Mata-Au.

8.9.13 Waahi taonga and waahi tapu sites are not adversely affected by activities on the beds or margins of lakes or rivers.

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

9

Groundwater

9.1 Introduction

Groundwater is the water that occupies or moves through openings, cavities or spaces in geological formations under the ground. It is an important resource to many of Otago's communities, where it serves a number of recognised uses. These uses include domestic and public water supply, stock drinking water, irrigation and industrial uses. Groundwater and associated springs are valued by Kai Tahu, who find discharges containing human sewage to such water culturally offensive.

The effects of inappropriate land and water use and development on groundwater quantity and quality are often long term, and in some cases may be permanent. It is therefore important that particular consideration be given to the protection of aquifers for the continued benefit of present and future generations.

There is often a hydrological connection between surface water and groundwater. Where the connection is significant, there needs to be recognition of the fact that the use of either surface water or groundwater can affect the other. For this reason, water quantity issues are addressed in Chapter 6.

The Regional Policy Statement for Otago ~~provides for the allocation of groundwater within the sustainable yield (Policy 6.5.11) and~~ requires that water quality be maintained or enhanced (Policy 6.5.5), in order to provide for the present and future needs of Otago's people and communities. This chapter applies the direction given by the Regional Policy Statement to the management of water and land use activities affecting groundwater, to achieve the above outcomes.

Note: The provisions in this chapter are in addition to those in Chapter 5, which seek to maintain or enhance the natural and human use values supported by lakes and rivers.

9.2 Issues

9.2.1 *[Refer to 6.2.1A]* ~~**Over-abstraction of groundwater in Otago can lead to:**~~

~~**(a) Long term depletion of groundwater volume;**~~
~~**(b) Loss of artesian conditions;**~~
~~**(c) Short and long term depletion of surface water;**~~
~~**(d) Contamination of groundwater resources; and**~~
~~**(e) Aquifer compression.**~~

~~**Explanation**~~

~~Over-abstraction occurs when groundwater is taken for consumptive use from the aquifer at a rate greater than it is being replaced by aquifer recharge. Such over-abstraction can result in the following adverse effects:~~

~~(a) Reduction of groundwater volumes: Given the reliance of particular communities on groundwater resources, any long term reduction in the amount of water able to be taken is of concern.~~

~~(b) Loss of artesian conditions: The loss of artesian pressure in aquifers also reduces the ability of users to access water. Existing bores would~~

require the installation of pumps to maintain the ability to draw water and this may not always be achievable.

(c) Depletion of surface water: Where aquifers have a strong connection with rivers, excessive takes of groundwater can reduce the river flows. This is of concern as such reductions can adversely affect the natural and human use values supported by the river and the ability of people to take water for consumptive use.

(d) Contamination of groundwater: Over-abstraction of groundwater can induce intrusion of poorer quality groundwater or sea water to the aquifer. This is of concern given that after contamination, restoration of groundwater to its original quality can be difficult and, where it is possible, may take a long time.

(e) Aquifer compression: Irreversible aquifer compression, or reduction in the aquifer's capacity to hold water, may occur as a result of over-abstraction. In such circumstances it is very difficult to restore the original aquifer capacity. Land subsidence may also occur as a consequence of aquifer compression.

Table 1 summarises concerns relating to over-abstraction of groundwater from particular aquifers that have been investigated to date. Investigation of further aquifers is ongoing.

Table 1: Issues related to over-abstraction in significant Otago aquifers.

Aquifer	Depletion of groundwater volume	Loss of artesian pressure	Depletion of surface water	Contamination of groundwater
Papakaio	✓	✓	✓	✓
North Otago Volcanics	✓		✓	✓ (sea water)
Kakanui-Kauru Alluvium			✓ (short term)	
Lower Shag Alluvium			✓ (short term)	✓ (sea water)
Lower Taieri	✓	✓	✓	✓
Ettrick Basin	✓		✓	
Roxburgh Basin	✓			

Objectives: 9.3.1, 9.3.2, 9.3.3
Policies: 9.4.1 to 9.4.6, 9.4.8 to 9.4.13, 9.4.15, 9.4.16, 9.4.22
See also: Policies in section 6.4

9.2.2 *[Refer to 6.2.4A]* **The taking of water from one bore can lower the water level in neighbouring bores.**

Explanation

Takes of groundwater can adversely affect other existing groundwater takes through bore interference. Bore interference relates to the temporarily reduced ability of users in a localised area to take water due to the taking of water from another bore that reduces the pressure or the level of groundwater. The potential for interference is related to the proximity of neighbouring bores, the transmissivity within the aquifer and the rate at which water is taken from the new bore. Such interference should be minimised because of the likely conflict among users of groundwater.

Objectives: 9.3.4

~~*Policies: 9.4.7, 9.4.8, 9.4.12, 9.4.13, 9.4.22*~~

9.2.3 Groundwater resources can become contaminated as a result of:

(a) Point source discharge of effluent onto or into land;
(b) Land use activities which result in non-point source discharge of effluent, nutrients or other contaminants;
(c) The accidental spill of a hazardous substance,

when they occur in groundwater recharge areas, and

(d) Excavation of any protective soil mantle or impervious strata overlying an aquifer.

Explanation
Groundwater quality is at risk of being degraded by the infiltration of contaminants into aquifers. The contaminants may be sourced from the land application of effluent, land use activities which create non-point source discharges, or from accidental spills. The discharge of these contaminants can undermine all efforts previously made to maintain or enhance groundwater quality.

As well as the nature and quantity of the substance involved, the risk of contamination from any of the above activities is determined by hydrology, soil and geological characteristics of the aquifer and overlying material, and therefore varies from place to place. Some groundwater resources are protected from the infiltration of contaminants by a relatively thin layer of soil or impervious sediment, which excavation can remove or compromise.

Objectives: 9.3.3
Policies: 9.4.2, 9.4.18 to 9.4.21
See also: Chapter 7

9.2.4 The siting, construction and operation of groundwater bores and other drill holes can lead to the contamination of groundwater resources.

Explanation
Bores and other drill holes may be located, constructed or operated in a manner that allows contaminants to enter groundwater. The greatest risk of contamination occurs where bore heads or drill holes are not protected from surface drainage, potentially allowing contaminants in runoff to enter the aquifer. This may be exacerbated by the use of potential contaminants close to the bore or drill hole. The bore or drill hole may also be constructed or operated in a manner which allows the movement of poor quality water between aquifers when they are penetrated by the same hole. Since groundwater contamination can be long term, threatening public health and the current uses of the groundwater, it is important that such contamination be avoided.

Objectives: 9.3.3
Policies: 9.4.14 to 9.4.17

9.2.5 Over-use of poor quality groundwater for irrigation may degrade soil resources.

Explanation
Groundwater in certain parts of Otago may be of poor quality. The groundwater of the Waiareka Volcanic Aquifer, for example, is naturally saline. There is potential for long term degradation of soil health through application of this water for irrigation. While the affected communities are usually aware of this problem and are taking measures to address it, there is a need to evaluate the potential for soil degradation in the granting of any consent to use groundwater for irrigation purposes.

Objectives: 9.3.5
Policies: 9.4.2, 9.4.23

9.3 Objectives

9.3.1 To sustain the recognised uses of Otago's groundwater.

Explanation
Groundwater is an important resource in certain areas of Otago as it provides water for domestic and public water supply, stock drinking water, industry and irrigation. The recognised uses of specific aquifers are identified in Schedule 3 of this Plan. This objective seeks to sustain these consumptive uses for the continued benefit of present and future generations.

Principal reasons for adopting
This objective is adopted to ensure that present and future generations can continue to benefit from Otago's significant groundwater resources.

Policies: 9.4.1, 9.4.2
See also: Objective 9.3.1

9.3.2 *[Refer to 6.3.2A]* ~~**To maintain long term aquifer yield in Otago's groundwater resources.**~~

~~**Explanation**~~
~~The yield of groundwater from aquifers can be reduced where water is taken at a greater rate than it is being replaced by aquifer recharge. This objective seeks to avoid any such long term or irreversible reductions in aquifer volume through appropriate management of groundwater takes.~~

~~**Principal reasons for adopting**~~
~~This objective is adopted to ensure the continued availability of groundwater for existing and future users, and for natural and human use values of connected surface waters.~~

~~*Policies: 9.4.1 to 9.4.6, 9.4.8, 9.4.9, 9.4.11 to 9.4.13, 9.4.15, 9.4.16, 9.4.22*~~

9.3.3 To maintain the quality of Otago's groundwater.

Explanation
It is important to maintain the existing groundwater quality of Otago's aquifers in order to provide for the existing and potential uses of water. Groundwater can be contaminated through inappropriate land use, discharge or accidental spill of contaminants, over-abstraction of water, and inappropriate siting, construction and operation of bores.

Principal reasons for adopting
This objective is adopted to avoid the irreversible or long term contamination of groundwater caused by the discharge of contaminants or by the excessive taking of groundwater. This will ensure that the quality of the groundwater is sufficient for existing and future users.

Policies: 9.4.1, 9.4.2, 9.4.4 to 9.4.6, 9.4.10, 9.4.14, 9.4.17 to 9.4.21

9.3.4 *[Refer to 6.3.3]* ~~**To minimise conflict among existing users of groundwater bores.**~~

~~**Explanation**~~
~~The taking of water through one bore can reduce the amount of water available at other nearby bores through reductions in pressure or water levels. This creates the potential for conflict among users of groundwater bores. This objective seeks to avoid such conflict by minimising the potential for bore interference.~~

~~**Principal reasons for adopting**~~
~~This objective is adopted in recognition of the investment that Otago's communities have made in resources to take and use groundwater. By minimising the potential for bore interference, continued access to the resource will be enabled.~~

~~*Policies: 9.4.7, 9.4.8, 9.4.11, 9.4.12, 9.4.13, 9.4.22*~~

9.3.5 To avoid degradation of soils arising from the inappropriate application of poor quality groundwater.

Explanation
Groundwater is used for irrigation in several parts of Otago. Where the quality of groundwater used is likely to lead to the long term degradation of soil health, the management of irrigation practices may need to be modified to avoid this adverse effect.

Principal reasons for adopting
This objective is adopted to ensure the productive capacity of soil is not compromised, for present and future generations, as a result of irrigation by poor quality groundwater.

Policies: 9.4.2, 9.4.23

9.4 Policies

9.4.1 In managing any activity involving the taking of groundwater or the discharge of contaminants, to ensure that the suitability of aquifers to support the recognised uses of groundwater identified in Schedule 3 is maintained.

Explanation
The recognised uses of certain aquifers, identified in Schedule 3 of this Plan, can be adversely affected by the taking of water, or the discharge of contaminants to land or directly into groundwater. When considering these activities, regard must be had to avoiding adverse effects on the identified uses. Where uses are identified for other aquifers, they can still be given recognition when considering individual resource consents.

Principal reasons for adopting
This policy is adopted to ensure that the recognised uses of certain aquifers, identified in Schedule 3 of this Plan, are maintained. It is important to retain the ability of the groundwater to meet the present needs of groundwater users due to their reliance upon the water.

Rules: 12.2.3.1 to 12.2.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.13.1.1, 14.2.2.1, 14.2.3.1
Other methods: 15.2.2.1, 15.3.1.1, 15.4.2.1, 15.4.2.2

9.4.2 *[Also refer to 6.4.10A]* **In managing the taking of water from any groundwater aquifer, to give priority to avoiding, in preference to remedying or mitigating~~:~~**
~~(a) The total take from all bores exceeding the annual renewable yield of the aquifer;~~
~~(b) Depletion of any surface water resource;~~
~~(c) Contamination of groundwater or surface water;~~
~~(d) Aquifer compression; or~~
~~(e) Irreversible~~ irreversible or long term degradation of soils arising from use of the water for irrigation.

Explanation
The ~~taking of groundwater can have adverse effects on both groundwater and surface water resources, while the~~ use of poor quality groundwater can degrade soil resources. When considering the taking of water from any groundwater aquifer, priority will be given to avoiding the adverse effects identified ~~in (a) to (e) of the policy~~. If the adverse effects of the taking are considered to be unavoidable, the adverse effects must be remedied or mitigated.

Principal reasons for adopting
~~This policy is adopted to ensure that the quality and quantity of groundwater, and any connected surface water, is maintained when managing the taking of water from any aquifer. It is important to achieve this outcome, in order to provide for the needs of Otago's present and~~

~~future generations.~~ The policy will ~~also~~ assist to maintain soil quality where it may be adversely affected by the application of groundwater.

Rules: 12.2.3.1 to 12.2.4.1
Other methods: 15.2.2.1

9.4.3 *[Refer to 6.4.0]* ~~**In managing the effects of any take of groundwater on surface water resources, to have regard to:**~~
~~**(a) The connection between the water bodies;**~~
~~**(b) The transmissivity within the aquifer.**~~

~~**Explanation**~~
~~Policy 9.4.2 gives priority to avoiding the depletion of any surface water resource caused by the taking of groundwater. The way in which takes of groundwater affect surface water resources is influenced by the degree to which an aquifer allows water to pass through it (its transmissivity) and the degree to which it is connected to surface water. These factors will need to be evaluated when considering resource consents for the taking of groundwater, to determine the likely effect the take may have on surface water.~~

~~**Principal reasons for adopting**~~
~~This policy is adopted to recognise that changes in groundwater quantity within an aquifer can impact upon surface water bodies. This recognition will assist to manage takes of groundwater so that the adverse effects on surface water body quantity are avoided, remedied or mitigated in accordance with Policy 9.4.2.~~

~~*Rules: 12.2.3.1 to 12.2.4.1*~~

9.4.4 *[Refer to 6.4.10A]* ~~**To establish and set restriction levels, as identified in Schedule 4, applying to resource consents for the taking of groundwater from the following aquifers:**~~
~~**(a) Papakaio;**~~
~~**(b) North Otago Volcanics;**~~
~~**(c) Lower Taieri;**~~
~~**(d) Ettrick Basin; and**~~
~~**(e) Roxburgh Basin.**~~

~~**Explanation**~~
~~The exercise of resource consents to take water from the above aquifers will be restricted, in the form of a percentage reduction in allowable take, when the aquifer levels specified in Schedule 4 have been reached. A non-regulatory alternative to the 25% restriction can be utilised by a water allocation committee appointed by the Council, provided the committee uses a protocol approved by the Council. Policy 9.4.5 identifies when the restrictions will apply to resource consents. Maps D1-D4 show the areas over which the restrictions apply.~~

~~Principal reasons for adopting~~

~~This policy is adopted to maintain levels and pressures within specified distances of aquifer maxima in the identified aquifers. This will assist in achieving the environmental results detailed in Schedule 4.~~

~~Rules: 12.2.3.2 to 12.2.4.1~~

9.4.5 *[Refer to 6.4.10A]* **~~The restriction levels established by Policy 9.4.4 will apply to resource consents for the taking of groundwater, as follows:~~**

~~(a) In the case of new takes applied for after 28 February 1998, upon granting of the consent; and~~

~~(b) In the case of any existing resource consent to take groundwater which contravenes Rule 12.2.3.2, and was either:~~

~~(i) Current at 28 February 1998; or~~

~~(ii) Granted after 28 February 1998 but was applied for prior to 28 February 1998,~~

~~upon collective review of consents within each aquifer under Section 128 of the Resource Management Act, to occur at a date in the period from 2 October 2001 to 2 October 2021, as determined in consultation with affected consent holders.~~

~~Explanation~~

~~This policy provides for the progressive application of the restriction levels established by Policy 9.4.4 to which resource consents for the taking of groundwater will be subject. Such restriction of any new take will apply immediately, through conditions on the consent. Restrictions will apply to takes of groundwater existing at 28 February 1998 through review under Sections 128 to 132 of the Resource Management Act. A condition on the resource consent may then require the consent to be suspended when the restriction level has been reached. This review will be coordinated so that the resource consents can be considered collectively.~~

~~Principal reasons for adopting~~

~~This policy is adopted to establish how restriction levels will be applied to resource consents for taking water. The policy ensures the effective, and equitable implementation of means to protect the recognised uses of aquifers. The requirement that takes existing at 28 February 1998 become subject to restrictions from 2 October 2001 is to coordinate the review of ordinary resource consents with the termination of Notified Use rights issued pursuant to the Water and Soil Conservation Act 1967.~~

~~Rules: 12.2.3.2 to 12.2.3.5~~

9.4.6 *[Refer to 6.4.11]* **~~To suspend the exercise of resource consents to take groundwater when the relevant restriction levels identified in Schedule 4 have been reached.~~**

~~Explanation~~

~~When the restriction levels identified in Schedule 4 have been reached, the relevant resource consents for the taking of groundwater will be~~

~~suspended. The levels are monitored from monitoring bores, identified in Maps D1-D4. The Otago Regional Council will notify those taking groundwater under resource consents that are subject to any restriction under this Plan, of the requirement to suspend taking when the level is at or below those identified in Schedule 4.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to indicate when resource consents for the taking of groundwater will be suspended in order to protect the aquifer yield and the recognised uses of the aquifer.~~

~~*Rules: 12.2.3.2 to 12.2.3.5*~~

9.4.7 *[Refer to 6.4.10B]* ~~**In managing the taking of groundwater, to have regard to avoiding adverse effects on existing groundwater takes, unless the approval of affected persons has been obtained.**~~

~~**Explanation**~~

~~This policy recognises that the taking of groundwater from any aquifer can result in bore interference. Bore interference relates to the temporarily reduced ability of users in a localised area to take water due to the taking of water from another bore reducing the pressure or the level of groundwater. When considering the taking of groundwater, regard will be had to avoiding adverse effects on existing takes. Conditions on a resource consent to take groundwater may include limits on the instantaneous take of groundwater from the bore, in order to maintain existing access to water in neighbouring bores. Schedule 5 identifies formulae that will be applied in order to determine the acceptable level of bore interference.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to maintain, as far as possible, the availability of groundwater at existing bores. This will assist to avoid the potential for conflict among those taking groundwater.~~

~~*Rules: 12.2.3.1 to 12.2.4.1*~~

9.4.8 *[Refer to 6.4.0A]* ~~**To ensure that the quantity of water granted, under a resource consent for the taking of water, is no more than that required for the intended use of that water having regard to the local conditions.**~~

~~**Explanation**~~

~~When considering applications for resource consents to take water, the actual quantity required for the intended use of the water taken, must be reflected in any consent granted. Given the diverse nature of the Otago region, those requirements may also be affected by local conditions, and these should also be taken into account in determining the appropriate quantity of water to be granted.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to ensure that the water allocated to any take under a new resource consent is no more than the actual requirements of the user. Reducing such inefficient use of water will enable more people to benefit from water available for consumptive use.~~

~~*Rules: 12.2.3.1 to 12.2.4.1*~~
~~*Other methods: 15.3.1.1*~~

9.4.9 *[Refer to 6.4.1A]* ~~**To manage the taking of water from the Kakanui-Kauru Alluvium and Shag Alluvium Aquifers in accordance with minimum flow regimes, identified in Schedules 2A and 2B for the Kakanui catchment area and policies under 6.4 for the Shag catchment area.**~~

~~**Explanation**~~
~~Because of the close interconnection of alluvial groundwater and surface water in the Kakanui and Shag catchments, groundwater takes may affect surface water, and vice-versa. Therefore, these surface and groundwater takes will be managed for the same objective. This means that takes of water from the Kakanui-Kauru Alluvium and Shag Alluvium Aquifers will cease when the minimum flows established in this Plan for the Kakanui and Shag Rivers have been reached, in accordance with Policy 6.4.11. Maps C10 and C11 show the Kakanui-Kauru Alluvium and Shag Alluvium Aquifers.~~

~~**Principal reasons for adopting**~~
~~This policy is adopted to ensure the management of groundwater and surface water is consistent, where the two resources are closely connected within both the Kakanui-Kauru and Shag catchments. Restrictions on surface water takes to maintain a minimum flow in these rivers, will not be effective if takes from a closely connected groundwater body are not similarly limited.~~

~~*Rules: 12.2.3.1, 12.2.3.5, 12.2.4.1*~~
~~*See also: Policies in section 6.4 and Schedule 2A and 2B*~~

9.4.10 *[Refer to 6.4.10A]* ~~**To manage the taking of water from any bore such that groundwater contamination by sea water intrusion is avoided.**~~

~~**Explanation**~~
~~Sea water occurs at the coast, but it can also extend inland within a fresh water body. Where pumping from a bore reduces the water level in an aquifer so that this sea water enters the aquifer, contamination occurs. This policy requires minimum pumping water levels to be set when considering applications to take groundwater from vulnerable aquifers near the coast or near the inland extent of sea water. A minimum pumping level is the level of water in the aquifer below which the taking of water should cease.~~

~~Principal reasons for adopting~~

~~This policy is adopted to prevent sea water intrusion into aquifers near the coast. Maintaining the elevation of the pumping water level for any bore within close proximity of sea water will prevent sea water intrusion caused by the pumping. If contaminated, the resulting salt content of the groundwater would restrict its range of uses.~~

~~*Rules: 12.2.3.1 to 12.2.4.1*~~

9.4.11 *[Refer to 6.4.17]* **~~On the application of any consent holder, to approve the transfer of consents to take water in terms of Section 136(2)(b)(ii) of the Resource Management Act providing that:~~**

~~(a) The transferred take is exercised within the same aquifer as the original consent;~~

~~(b) The total take from the aquifer following transfer does not exceed that occurring prior to the transfer, as a result of the transfer;~~

~~(c) The quantity of water taken is no more than that required for the intended use of that water, having regard to the local conditions; and~~

~~(d) There is no more than a minor adverse effect on any other take.~~

~~Explanation~~

~~Section 136(2)(b) of the Resource Management Act provides for the transfer of a resource consent, or part of a consent, to another site or to another person on another site, if both sites involve the same aquifer. An application to transfer the consent must be made to the Otago Regional Council. This policy sets out the requirements for the transfer of consents to take water to be approved by the Council. The explanation to Policy 9.4.8 provides additional guidance in terms of (c).~~

~~Principal reasons for adopting~~

~~This policy is adopted to enable new users to gain access to existing allocated resources provided the other water users' interests in the water resource, are not adversely affected. Transfers are a means by which the beneficial and efficient use of the allocated resource can be achieved.~~

~~*Rules: 12.2.3.1 to 12.2.4.1*~~

9.4.12 *[Refer to 6.4.12]* **~~To promote, establish and support appropriate water allocation committees to assist in the management of the taking or using of groundwater.~~**

~~Explanation~~

~~Water allocation committees can assist the Otago Regional Council to manage Otago's groundwater resources. In particular, where levels approach those identified in Schedule 4 for the restriction of groundwater takes, such groups can:~~

~~(a) Effectively manage water rationing to avoid or delay reaching the restriction levels;~~

(b) Manage the implementation of the take restrictions in accordance with Schedule 4.

The committees will be made up of local representatives of people taking water from within the catchment affected by the restriction regime. The Otago Regional Council will appoint such committees, as subcommittees of the Council, for the purpose of developing and managing rationing regimes. The Council will support them by providing information on water levels, and advice on options for rationing to suit particular circumstances, and by enforcing compliance with rationing regimes, as provided for by Policy 9.4.13. The rationing regimes require approval of the Otago Regional Council.

Principal reasons for adopting

This policy is adopted to ensure effective water allocation decisions can be made. Where possible, it is intended to take full advantage of local knowledge of water user needs, to ensure local circumstances are taken into account. This will facilitate appropriate management of the taking and use of groundwater and enable users to get involved in that management.

Other methods: 15.2.2.1, 15.3.2.1

9.4.13 *[Refer to 6.4.13]* **To suspend any resource consent to take groundwater where the holder of that resource consent does not comply with any rationing regime established by a water allocation committee established in terms of Policy 9.4.12.**

Explanation

Where takes may be restricted by the application of a restriction level or minimum flow, there can be benefit to users in adopting a cooperative approach to rationing takes of groundwater. As the observed flow approaches the restriction level, consent holders may act to ration their combined take and keep the level above those identified in Schedule 4. This can only work effectively when all consent holders cooperate in observing rationing arrangements. Where consent holders do not cooperate, their consent may be suspended by the Otago Regional Council in advance of others.

The requirement for compliance with any rationing regime established by a water allocation committee will be a condition of resource consents that can be included on new consents, or upon the review of existing consents.

Principal reasons for adopting

This policy is adopted to enable the equitable sharing of water resources under conditions of low groundwater availability, and assist to delay the wider suspension of takes by a restriction level.

Rules: 12.2.3.1 to 12.2.4.1
Other methods: 15.2.2.1

9.4.14 *[Also refer to 6.4.10C]* **To require appropriate siting, construction and operation of new groundwater bores, to prevent:**

(a) Contaminants from entering an aquifer; and

(b) The contamination of groundwater in any aquifer from the groundwater in another aquifer; and

~~**(c) The loss of pressure or water wastage in confined artesian conditions; and,**~~

to promote such management for existing bores.

Explanation

Bores may be located, constructed or operated in such a manner that allows contaminants to enter groundwater~~, or loss of pressure in confined artesian conditions. Confined artesian aquifer conditions occur where the pressure of water in an aquifer, beneath an impermeable or semi-permeable layer, results in water level rise above the bottom of that confining layer~~. For new bores, the opportunity exists to avoid such adverse effects by requiring:

- Their siting in an area where runoff cannot enter them; or
- Bunding, so that runoff or accidental spills cannot enter them; and
- Bore casings which prevent movement of poor quality water between aquifers~~; and~~.
- ~~Adequate sealing so that there is no loss of artesian pressure.~~

The opportunity to upgrade existing bores to meet these same standards will be taken through promotion programmes.

Principal reasons for adopting

This policy is adopted to ensure that bores are sited, constructed and operated in a manner that maintains the water quality ~~and pressures~~ within an aquifer. This is important so that present and future uses can be supported by the aquifer. Appropriate measures can be required through a condition on a resource consent for any new bore, while promotion will be most effective in achieving these standards with existing bores.

Rules: 12.2.3.1 to 12.2. ~~4~~5.1, 14.1.1.1
Other methods: 15.4.2.2

9.4.15 *[Refer to 6.4.10D]* ~~**To require that new bores in the Papakaio and Lower Taieri Aquifers are constructed of materials suitable to resist corrosion and in a manner that enables their complete shutdown.**~~

~~**Explanation**~~

~~This policy establishes requirements for the construction of bores within the Papakaio and Lower Taieri Aquifers. These requirements will enable bores to have an adequate working life, minimise water quality problems associated with corrosion, and control expected artesian conditions. Construction of new bores in these aquifers will require appropriate equipment and expertise. Map C15 shows the location of the Lower Taieri Aquifer. Map D1 shows the Papakaio Aquifer.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to ensure that the construction of bores within the Papakaio and Lower Taieri Aquifers is appropriate for the aquifer conditions. This will protect the supply of water from these aquifers through maintaining both the pressure and the quality of the water as it is delivered by the bore.~~

~~*Rules: 14.1.1.1*~~
~~*Other methods: 15.4.2.2*~~

9.4.16 *[Refer to 6.4.10E]* ~~**Unless provision has been made to permanently decommission and seal the bore, to require the structural condition and control mechanisms of all existing bores in the Papakaio and Lower Taieri Aquifers to be certified as being secure against uncontrolled artesian discharge at no more than 5 year intervals.**~~

~~**Explanation**~~

~~This policy establishes the need to monitor existing bores within the Papakaio and Lower Taieri Aquifers to ensure that they are in sound working order, due to pressure in the aquifer and the corrosive nature of the water. The condition of the bore is considered secure when it is able to resist corrosion and be completely shut down. Map C15 shows the location of the Lower Taieri Aquifer. Map D1 shows the Papakaio Aquifer.~~

~~**Principal reasons for adopting**~~

~~This policy is adopted to ensure that there is the facility to safely and effectively control the pressures experienced in the Papakaio and Lower Taieri Aquifers. Such measures will enable compliance with other requirements of this Plan.~~

~~*Rules: 14.1.1.1*~~
~~*Other methods: 15.4.2.2*~~

9.4.17 To require new drill holes to be appropriately sealed to prevent contaminants entering any aquifer.

Explanation

Drill holes can be located where runoff containing contaminants may enter groundwater. For new drill holes, this can be avoided by requiring that the drill hole be sealed before the hole is abandoned. Sealing would be considered appropriate if it prevents runoff from entering the hole, and prevents water moving between aquifers.

Principal reasons for adopting

This policy is adopted to ensure that inadvertent contamination of aquifers does not occur through new drill holes intercepting groundwater and being left in a way that allows aquifer contamination. This is important so that present and future users can utilise the aquifer.

Rules: 14.2.2.1, 14.2.3.1

9.4.18 To identify land of high risk in terms of the vulnerability of underlying groundwater to leachate contamination and to manage, with respect to this land:

(a) Change in land use to activities which have the potential to result in leachate discharges, so that the activities are, where practicable, located elsewhere, or contaminants are contained;
(b) Existing land use activities so that any potential for groundwater contamination is monitored and, where necessary, corrective action is taken;
(c) Point source discharges of water or contaminants to land or groundwater; and
(d) Excavation, so that any protective soil mantle or impervious stratum is retained, replaced, or alternative groundwater protection is provided.

Explanation
The vulnerability of aquifers to leachate contamination is determined by the depth of the aquifer and the permeability of the overlying soil or rock. Any area of land, over parts of aquifers which are considered to be high risk in this regard, is identified as Zone A of the Groundwater Protection Zones on Maps C1-C17.

In this zone, change of land use to activities likely to generate leachate should, where practicable, be avoided. Where it is not considered possible to do so, provision must be made to contain any leachate generated. City and district councils will manage such land use change within Zone A in accordance with the direction provided by this policy.

The groundwater beneath existing land use activities in Zone A will be monitored by the Otago Regional Council. Where land use in this zone is observed to be adversely affecting groundwater quality, actions will be required to avoid the effect, such as appropriate storage and handling of hazardous substances, or adequate spills containment.

Discharges of water or contaminants to land or directly into groundwater also have the potential to degrade groundwater quality in Zone A. Such discharges are managed by the Otago Regional Council through rules in this Plan, or in the case of discharges from contaminated sites, landfills, silage pits, and offal pits, through the Regional Plan: Waste.

Excavation of the land in Zone A may further increase the vulnerability of the aquifer by removing the protective soil mantle or impervious stratum. As such, city and district councils will manage excavation within Zone A in accordance with the direction provided by this policy.

It is recognised that development for primary production including increased use of irrigation will lead to intensification of land use which, in turn, may increase the risk of the contamination of water, but that in some cases land use practices can lead to improved health of the soil mantle and a subsequent decreased risk to underlying aquifers.

Principal reasons for adopting
This policy is adopted to minimise and, as far as possible, avoid the potential for long term contamination of groundwater resources from leaching liquid contaminants. It is important to maintain existing groundwater quality in Otago's aquifers to provide for the existing and potential uses to which that water can be put by the region's people and communities.

Rules: 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.11.3.1, 12.13.1.1.
Other methods: 15.2.7.1, 15.3.2.1, 15.4.2.2

9.4.19 To identify land which protects underlying aquifers from leachate contamination and to manage excavation, with respect to this land, so that any protective soil mantle or impervious stratum is retained or replaced, or alternative groundwater protection is provided.

Explanation
Some aquifers are protected from leaching contaminant discharges by a layer of soil or impervious sediment. Zone B of the Groundwater Protection Zones is of generally low risk in terms of groundwater vulnerability, provided these protective soils or sediments are not compromised by inappropriate excavation. As such, city and district councils will manage excavation within Zone B in accordance with the direction provided by this policy. Zone B of each Groundwater Protection Zone is identified on Maps C1–C17.

Principal reasons for adopting
This policy is adopted to ensure that the protection from leachate contamination provided by the soil mantle or impervious strata is maintained. This will assist to avoid the long term contamination of groundwater resources from leaching liquid contaminants.

Other methods: 15.2.7.1

9.4.20 To require that all practical alternative locations for the storage of hazardous substances have been considered before such storage occurs over Zone A of any Groundwater Protection Zone identified on Maps C1-C17.

Explanation
Although the use of hazardous substances may provide benefits to the community, the storage of such substances over aquifers vulnerable to leachate contamination also represents a risk of contamination through spillage. Any person intending to store hazardous substances in Zone A of a Groundwater Protection Zone will require land use consent from the relevant city or district council. Maps C1-C17 show the land to which the above requirements will apply. The applicant will have to demonstrate that there are no practical alternative locations to store the substance.

Principal reasons for adopting
This policy is adopted to avoid the discharge into groundwater where hazardous substances are inappropriately stored. There is increased likelihood of such contamination where the storage occurs in land over a vulnerable part of an aquifer. Such discharges will adversely affect water quality and the ability of Otago's people and communities to use the resource.

Other methods: 15.2.7.1, 15.4.2.2

9.4.21 To support appropriate codes of practice and management guidelines for land use activities which may result in contaminants entering groundwater.

Explanation
The Council supports codes of practice and management guidelines that reduce the adverse effects of land use activities on groundwater quality. This will involve:

(a) Working with relevant industry and community groups to identify how land use activities can be carried out in ways which minimise contaminants leaching to groundwater; and
(b) Working with those who take groundwater to ensure that activities which have the potential to contaminate groundwater are located at safe distances from bores.

Principal reasons for adopting
This policy is adopted to encourage voluntary action by landholders to improve land management practices in terms of their effect on groundwater quality.

Other methods: 15.5.1.1, 15.5.1.2

9.4.22 *[Also refer to 6.4.16]* **In granting resource consents to take water from any aquifer, or in any review of the conditions of a resource consent to take water from any aquifer, ~~to require the volume and rate of take to be measured in a manner satisfactory to the Council unless it is impractical or unnecessary to do so, and~~ where appropriate to require groundwater quality to be monitored.**

Explanation
~~It is appropriate to require that the volume and rate of any take of water be measured unless it is impractical or unnecessary to do so. This is the case where there may be uncertainty about the actual demand at various times and where adverse effects on the environment or users could arise due to demand being either under-estimated or over-estimated. The requirement to measure takes may be waived on a case-by-case basis when considering resource consent applications to take water, where measurement is not practicable or where there is no benefit derived from doing so.~~

~~Information on volume and rate of take may also be required as a result of a review of consent conditions undertaken in accordance with Policy 9.4.5 and Rules 12.2.3.1(vii) and 12.2.3.2(v).~~

It may ~~also~~ be appropriate to require that the quality of groundwater taken from bores be monitored to provide data to determine changes in water quality in the aquifer. These changes may signal the need for management of water takes from the aquifer or land use over parts of aquifers which are vulnerable to leachate contamination.

Principal reasons for adopting

~~This policy is adopted to provide for the measurement of water takes in a manner suitable to the needs of the Council and the environment. The policy will assist to identify actual demand for water, and thus may allow adjustment of the allocation of water available to users.~~

~~The reasons for requiring the measuring of takes as a result of a review of consent conditions, under Policy 9.4.5 include:~~

- ~~Better information on the volumes and rates taken will assist in establishing the influence of abstractions, if any, on the incidence and duration of minimum flows or aquifer restriction levels breaches, and also assist with water balance equations, allowing improved water management generally;~~
- ~~Better information will assist water allocation committees to more effectively manage the rationing of takes during times of low aquifer levels to prevent aquifer restrictions from being breached.~~

This policy is ~~also~~ adopted to provide better information on the quality of the groundwater where that is necessary and appropriate.

Rules: 12.2.3.1 to 12.2. ~~4~~5.1

9.4.23 To support the voluntary efforts of landholders in their management of the effects of poor quality groundwater on irrigated soils.

Explanation

Communities using groundwater for irrigation need to be aware of the potential for soil degradation where that water is of poor quality, and manage their irrigation accordingly. The Otago Regional Council currently supports users of Papakaio and Waiareka Volcanic Aquifer groundwater, in their management of irrigation, through the provision of information and technical support where necessary, and will take the same approach where similar problems arise elsewhere in the region.

Principal reasons for adopting

This policy is adopted to ensure appropriate action is taken to avoid reduction of the productive capacity of soil resources for present and future generations, resulting from irrigation using poor quality groundwater.

Other methods: 15.3.2.1, 15.5.1.1, 15.5.1.2

9.5 Anticipated environmental results

9.5.1 *[Refer to 6.7.2]* ~~**Aquifer yield is maintained so that Otago's people and communities have access to suitable supplies of groundwater for their present and reasonably foreseeable needs.**~~

9.5.2 **Groundwater is protected from long term contamination caused by the leaching or direct entry of contaminants.**

9.5.3 *[Refer to 6.7.8]* ~~**Bore interference is minimised.**~~

9.5.4 **The use of groundwater for irrigation does not result in the contamination of soils.**

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

10

Wetlands

10.1 Introduction

Otago once had extensive areas of wetland. Development of Otago has since involved the drainage and reclamation of wetlands to make way for farms and settlements, and to allow for infrastructure to function. But it is now evident that in undertaking those activities, the values of the wetland areas have not, in general, been recognised. The result is that many wetlands have been lost or degraded.

The Otago region still contains a diverse range of wetland types including high altitude blanket bogs, ephemeral saline areas, swamp forest remnants, shallow lake complexes, estuarine saltmarshes and valley floor swamps. These wetlands remain because of the compatibility of past and present land use with the values those wetlands support, or their inaccessible location, and are now highly valued by the community and landholders alike.

However, some of the region's remaining wetlands may still be lost or modified through human activities including:

- Water management: taking, damming (resulting in inundation of wetlands), or diversion of water (including that for land drainage), discharge of water or contaminants;
- Physical disturbance: reclamation, excavation, earthworks, vehicle crossings, trampling by animals or people, fire or cultivation;
- Introduction or removal of vegetation;
- Grazing of wetland vegetation;
- Erection of structures; and
- Deposition of substances.

The community's focus is now, largely, on the need for the conservation of remaining wetlands. The Regional Policy Statement for Otago reflects this focus by providing for the protection of Otago's significant wetlands, and their associated values, from the adverse effects of any activity.

This Plan identifies significant wetland areas (see Schedule 9). The policies contained in this chapter seek to maintain or enhance the values these wetlands support for present and future generations. The opportunity to achieve this objective will arise when considering a resource consent for particular water or land use activities. Other wetlands that may or may not contain significant values are listed in Schedule 10. Drainage of these areas also requires a consent and the applicant is first asked to identify whether any significant values exist on the affected land.

Given the functions of local authorities under Sections 30 and 31 of the Resource Management Act, the management of the effects of activities on the identified wetlands will require a coordinated response between the Otago Regional Council and the region's city and district councils.

10.2 Issues

10.2.1 Otago has wetlands which contain irreplaceable values which are at risk of being lost through wetland modification.

Explanation
Otago contains wetlands which:
(a) Provide a variety of critical habitats;
(b) Are of an unmodified nature;
(c) Possess a unique form or character; or
(d) Are mahika kai or waahi taoka to Kai Tahu.

There is a risk that any wetland modification caused by the use or development of water or land resources will result in the permanent loss of the values identified in (a) to (d). Therefore, these values are considered to be irreplaceable and their loss will result in reduced opportunities to provide for the well being of Otago's people and communities. This would not only affect present generations, but would reduce the choices available to future generations.

Objectives: 10.3.1
Policies: 10.4.1, 10.4.2, 10.4.5, 10.4.7

10.2.2 Otago has wetlands which provide a range of values which, while not irreplaceable, are at risk of degradation through inappropriate use and development of land and water resources.

Explanation
Some of Otago's remaining wetlands are significant to the region's communities due to their value for a range of flora and fauna, including indigenous waterfowl, or their ability to function as water purifying or storage systems. Where wetlands are degraded by use or development of water or land resources, the values associated with these wetlands are diminished. Given the importance of wetland values to Otago's people and communities, such adverse effects are of concern.

Objectives: 10.3.1
Policies: 10.4.3 to 10.4.5, 10.4.7

10.2.3 There is a risk that wetlands which do not contain significant values individually, but which collectively contribute to the values of Otago's wetlands, will be lost or degraded.

Explanation
Otago has many wetland areas that are not individually significant in terms of Issues 10.2.1 and 10.2.2, but collectively they contribute the following values:
(a) Habitat for flora and fauna;
(b) Natural character;
(c) Hydrological values; and
(d) Kai Tahu cultural and spiritual beliefs, values and uses.

Because these wetlands are not considered to be as important as other wetlands in the region, they are at risk of being lost or modified through both deliberate or inadvertent actions. Their cumulative loss may have a significant impact upon the values of wetlands in Otago.

Objective: 10.3.1
Policies: 10.4.5 to 10.4.7

10.3 Objective

10.3.1 To maintain or enhance the following values of Otago's remaining wetlands:

(a) Habitat for flora and fauna;
(b) Natural character;
(c) Hydrological values; and
(d) Kai Tahu cultural and spiritual beliefs, values and uses.

Explanation
Otago's remaining wetlands allow for a range of community uses and have considerable intrinsic value. It is important that wetlands be maintained or enhanced to retain the opportunity for both present and future generations to experience and appreciate these uses and values. This will require that the use and development of the region's land and water resources be managed so that any adverse effects on wetlands, and their associated values, are avoided, remedied or mitigated.

Principal reasons for adopting
This objective is adopted to promote an ethic for the conservation of Otago's remaining wetlands. It recognises the extent of wetland loss in Otago and the importance of remaining wetlands in terms of the values they support. It also gives effect to the Regional Policy Statement for Otago, which provides for the protection of significant wetlands.

Policies: 10.4.1 to 10.4.7

10.4 Policies

10.4.1 To identify the following Type A values of Otago's wetlands in Schedule 9:

(a) Habitat for nationally or internationally rare or threatened species or communities;
(b) Critical habitat for the life cycles of indigenous fauna which are dependent on wetlands;
(c) High diversity of habitat types;
(d) Wetland with a high degree of naturalness;
(e) Wetland scarce in Otago in terms of its ecological or physical character; and
(f) Wetland which is highly valued by Kai Tahu for mahika kai or other waahi taoka.

Explanation
The values of Otago's wetlands that meet the criteria of the policy, hereafter termed Type A values, are significant to the region's people and communities because they are irreplaceable. Any wetland modification caused by the use or development of water or land resources is likely to result in their loss. For this reason, the Type A values of Otago's wetlands are to be protected. Schedule 9 of this Plan identifies the region's significant wetlands and their associated Type A values. These wetlands are shown in Maps F1–F60.

Principal reasons for adopting
This policy is adopted to provide a mechanism for determining the significance of Otago's remaining wetlands.

Rules: 12.1.1.1, 12.1.4.2 to 12.1.5.1, 12.2.4.1, 12.3.1.1 to 12.3.1.4, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.13.1.1, 13.2.3.1, 13.3.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2

10.4.2 To avoid the adverse effects of activities on the Type A values of any wetland.

Explanation
The Type A values of Otago's wetlands are to be protected from any use, development or protection of land, or any taking, diversion, damming or discharge of water, which may affect them. For this policy the term "protect" means that any adverse effects arising from the use and development of water or land resources will have to be avoided rather than remedied or mitigated. This policy does not preclude activities which would enhance the Type A values of any wetland. Schedule 9 of this Plan identifies the region's significant wetlands and their associated Type A values. These wetlands are shown in Maps F1–F60.

Principal reasons for adopting
This policy is adopted to ensure that the values of Otago's wetlands at greatest risk of irreversible loss, are protected. These values are considered irreplaceable as there is a risk that any wetland modification caused by the inappropriate use or development of water or land resources will result in their loss. Considering the past loss of wetlands in Otago, and their associated values, any adverse effects on existing Type A values should be avoided.

Rules: 12.1.1.1, 12.1.4.2 to 12.1.5.1, 12.2.4.1, 12.3.1.1 to 12.3.1.4, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.13.1.1, 13.2.3.1, 13.3.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2

10.4.3 To identify the following Type B values of Otago's wetlands in Schedule 9:

(a) Wetland with high diversity of indigenous flora and fauna;
(b) Wetland which is regionally significant habitat for waterfowl; and
(c) Wetland which has hydrological values including maintaining water quality or low flows, or reducing flood flows.

Explanation
The values of Otago's wetlands that meet the criteria of the policy, hereafter termed Type B values, are significant to the region's people and communities. This is because of the contribution they make to the habitat, natural character and hydrological values of the region's water resources. Although not irreplaceable, these values are at risk of degradation through inappropriate use or development of water or land resources. Schedule 9 of this Plan identifies the region's significant wetlands and their associated Type B values. These wetlands are shown in Maps F1–F60.

Principal reasons for adopting
This policy is adopted to provide a mechanism for determining the significance of Otago's remaining wetlands.

Rules: 12.1.1.1, 12.1.4.2 to 12.1.5.1, 12.2.4.1, 12.3.1.1 to 12.3.1.4, 12.3.3.1, 12.3.4.1 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.13.1.1, 13.2.3.1, 13.3.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2

10.4.4 To avoid the adverse effects of activities on the Type B values of any wetland, or where it is not possible to do so, require financial contributions, or works or services to offset any loss of wetland values in terms of the following:

(a) Improving the quality of habitat for flora and fauna of a similar but degraded habitat;
(b) Creating an artificial habitat of comparable or better quality;
(c) Reinstating habitat provided by wetland that no longer exists; or
(d) Offsetting any unavoidable adverse effect on the wetland's hydrological values.

Explanation
Any adverse effects of the use, development or protection of land or water resources on any Type B wetland value should be avoided where possible. Schedule 9 of this Plan identifies the region's significant wetlands and their associated Type B values. These wetlands are shown in Maps F1–F60. Compensation will be required, in terms of financial contributions, or works or services, where the adverse effects on any identified Type B value cannot be avoided. Such adverse effects are to be offset, remedied or mitigated by undertaking any of the actions identified in (a) to (d) of the policy. The consent authority must be satisfied that the actions appropriately offset, remedy or mitigate any loss or degradation of the Type B value. Financial

contributions, or works or services, may not be required to mitigate short-term effects where values will regenerate naturally. Any habitat which is created or reinstated as compensation will be subject to the same management as any other wetland supporting Type A or Type B wetland values. Financial contributions are detailed in Chapter 17 of this Plan.

Principal reasons for adopting
This policy is adopted to ensure that the modification of any wetland supporting Type B values only occurs where there will be no loss in the habitat, natural character and hydrological values it contains. Considering the past loss of wetlands in Otago, and their associated values, any adverse effects on existing Type B values should be remedied or mitigated.

Rules: 12.1.1.1, 12.1.4.2 to 12.1.5.1, 12.2.4.1, 12.3.1.1 to 12.3.1.4, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.10.2.1, 12.13.1.1, 13.2.3.1, 13.3.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2
See also: Chapter 17; Policies 6.5.6, 8.4.2

10.4.5 In the management of any activity above 800m above sea level, priority will be given, where practicable, to avoiding any adverse effect on any value that meets a Type A or B wetland criterion.

Explanation
Upland bogs, tarns and flushes often occur in steep or alpine terrain, frequently in remote locations. These wetlands can contain the significant values described by Policies 10.4.1 and 10.4.3. Type A and B values of wetlands situated above 800 metres above sea level are not identified in Schedule 9. This is because high altitude wetlands are generally considered not to be at risk in terms of the activities that can be regulated under the Regional Plan: Water or relevant district plans, given the extensive or infrequent use of this land.

In the event that activities above 800m above sea level are likely to affect wetland values, consent authorities must have regard to the maintenance of the values of high altitude wetlands when considering resource consent applications. While avoidance of adverse effects is a priority, where avoidance is not practicable such adverse effects must be remedied, mitigated, or appropriately compensated for.

Principal reasons for adopting
This policy is adopted to ensure that the values of high altitude wetlands are retained even though they are generally considered not to be at risk.

Rules: 12.1.4.8, 12.1.5.1, 12.2.4.1, 12.3.1.3, 12.3.3.1, 12.3.4.1, 12.4.2.1, 12.5.2.1, 12.6.2.1, 12.7.2.1, 12.8.2.1, 12.8.3.1, 12.9.2.1, 12.13.1.1, 13.2.3.1, 13.3.2.1, 13.5.2.1, 13.5.3.1, 13.6.3.1, 13.7.2.1, 14.3.2.1
Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2

10.4.6 To promote the conservation, creation and reinstatement of wetland areas and enhancement of wetland values by:

(a) Educating Otago's people and communities about land use activities that may result in the loss of wetlands and their values;
(b) Initiating or supporting investigations of wetlands and their values;
(c) Supporting voluntary community and landholder programmes; or
(d) Initiating or undertaking works in consultation with local communities.

Explanation
The conservation, creation and reinstatement of wetlands in Otago through voluntary action should be encouraged wherever it can be reasonably achieved. This policy identifies a range of means for the Otago Regional Council to promote and support such voluntary actions. A greater community awareness of the importance of wetlands, and the threats to them, is critical in achieving recognition of the need for maintaining or enhancing the region's wetlands. This awareness will be generated among landholders, industry groups, community groups, and city and district councils.

Principal reasons for adopting
This policy is adopted to encourage voluntary actions that would retain the natural character of Otago's wetlands and increase the total wetland area within Otago. Given the historical loss of wetlands within the region, such actions would enhance the use by people and communities, and the intrinsic values of Otago's wetlands.

Other methods: 15.2.7.1, 15.2.8.1, 15.2.8.2, 15.2.8.3, 15.4.2.1, 15.4.2.2, 15.4.3.1, 15.4.3.2, 15.5.1.1, 15.5.1.2

10.4.7 To protect the Type A and B values that may be supported by the wetlands identified in Schedule 10 by requiring resource consent for the drainage of those wetlands.

Explanation
The wetlands identified in Schedule 10 may or may not support Type A or B values. Rules 12.1.2.6 and 12.3.2.2 require a resource consent to be obtained before land drainage occurs at any of the Schedule 10 sites. If, through a consent process, a Schedule 10 wetland is found to support any Type A or B value, Policies 10.4.2 and 10.4.4 will ensure that those values are appropriately protected.

Over time, further information on the presence or absence of Type A or B values in Schedule 10 sites will come to light. If Type A or Type B values are found to be present, wetlands will be moved from Schedule 10 onto Schedule 9 via a plan change or plan review and their values identified in the Plan. For wetlands where Type A or B values are found to be absent, the wetland will be removed from the Plan's schedules. Artificial wetlands created by water storage dams, for example hydro-electric, irrigation, stock

water, community water supply, or farm effluent dams, will not be included in Schedule 9 where their inclusion will interfere with the purpose and operation of the dam.

Principal reasons for adopting
This policy is adopted to ensure that the Type A and B values of wetlands on Schedule 10 are not inadvertently lost due to a lack of information about Otago's wetlands.

Rules: 12.1.2.6 and 12.3.2.2.
Note that Chapter 13 rules also apply where a Schedule 10 wetland is located within the bed of a lake or river.

10.5 Anticipated environmental results

10.5.1 Kai Tahu spiritual and cultural beliefs values and uses associated with wetlands are maintained or enhanced.

10.5.2 The natural character of Otago's wetlands is protected from the inappropriate use and development of water and land resources.

10.5.3 Habitat and hydrological values of Otago wetlands are maintained or enhanced.

10.5.4 Wetlands are created, reinstated or enhanced, providing useful benefits, restoring lost values and reversing the adverse effects of the past loss of wetlands.

Monitoring of the achievement of these anticipated environmental results will be carried out as outlined in Chapter 19.

11

Introduction to the Rules

11.1 Introduction

11.1.1 Content

The three chapters following this contain rules regulating the use of Otago's water and land resources in order to achieve the objectives of this Plan. The rules determine the status of any particular activity hence whether a resource consent is required for that activity to be carried out, and may specify whether the resource consent application needs to be notified.

The guide to the rules section introduces the terminology used in the rules and indicates those types of activity which require a resource consent. Notification of resource consents and consent conditions are also briefly discussed.

This chapter also contains an index to the Regional Plan: Water rules (see Table 2) and an outline of this Plan's relationship to district plans and other regional plans. A proposed activity may require consent under these plans. There may also be obligations that have to be met under other legislation , which this Plan does not replace or override. Some of this legislation is listed in section 11.3.1 of this chapter.

11.1.2 Rationale

The following activities can occur only if they are expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan or by a resource consent (Sections 13(1), 14 and 15 of the Resource Management Act 1991):

- The use of water;
- The taking of water;
- The damming or diversion of water;
- The discharge of water into water; or
- The discharge of contaminants into water or onto or into land in circumstances which may result in that contaminant entering water;

and, in respect of the bed of any lake or river:

- The use, erection, placement, alteration, reconstruction, extension, removal or demolition of structures;
- Any bed disturbance;
- The introduction of vegetation;
- The deposition of any substance; and
- Any drainage or reclamation.

Under Sections 9(3) and 13(2) of the Resource Management Act 1991, no person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use. This Plan includes rules to control the effects of particular land uses on Otago's water resource.

11.1.3 Guide to using this chapter

An activity may need to comply with more than one rule in this Plan so it is essential all relevant rules in Chapters 12, 13 and 14 be examined. Table 2 provides a guide to find the relevant rules for any particular activity. Once the status of a proposed activity is determined from the rules, Figure 4 can be used to find out whether resource consent is required.

11.2 Guide to the rules

11.2.1 Status of activities

The rules within this Plan determine the status of any particular activity and whether a resource consent is required for that activity to be carried out. Each of the rules specify whether a particular activity is:

- Permitted;
- Controlled;
- Discretionary;
- Non-complying; or
- Prohibited.

These classes of activity are described below. Figure 4 illustrates the difference between these classes and which require resource consents.

11.2.1.1 Permitted activity: No resource consent required

Activities specified as permitted activities within the rules of this Plan can occur without the need to obtain a resource consent, provided they comply with the conditions stated in the rule.

11.2.1.2 Controlled activity: Resource consent required but always granted

Activities specified as controlled activities within the rules of this Plan are activities which require a resource consent from the Otago Regional Council, but which will always be granted by the Council. The application for a resource consent will be assessed according to specified matters over which the Council will exercise its control. The resource consent may include conditions relating to these matters.

11.2.1.3 Discretionary activity: Resource consent required

Activities specified as discretionary activities within the rules of this Plan are activities which require a resource consent from the Otago Regional Council, but which the Council has retained its discretion as to whether it will grant the resource consent. The Council will, in considering any application for a discretionary activity, be guided by the objectives and policies contained within this Plan, the Regional Policy Statement for Otago, and the requirements of the Resource Management Act 1991. Conditions may be included on any resource consent granted.

Two types of discretionary activity exist, with the rules specifying which of these two discretionary activities applies in each case:

(a) Restricted discretionary activities
Restricted discretionary activities are those for which the Otago Regional Council has restricted the exercise of its discretion. This means that the Council limits the range of matters it considers and only sets conditions (if the resource consent is granted) that are relevant to the matters to which it has restricted its discretion. The relevant rules of this Plan list these matters.

(b) Discretionary activities
Discretionary activities are those for which the Otago Regional Council retains full discretion. The Council will exercise its discretion in accordance with the relevant policies of this Plan. If the resource consent is granted the Council may set any conditions that fall within the Council's powers under Section 108 of the Resource Management Act.

11.2.1.3A Non-complying activities: Resource consent required
Activities specified as non-complying within the rules of this Plan are activities which require a resource consent from the Otago Regional Council, but which the Council may grant or decline the resource consent. The Council will, in considering any application for a non-complying activity, need to be satisfied that the effects of the activity on the environment will be minor or the activity will not be contrary to the objectives and policies of the Plan and any proposed Plan in respect of the activity. Conditions may be included on any resource consent granted.

11.2.1.4 Prohibited activity: No resource consent will be granted
Activities specified as prohibited activities within the rules of this Plan may not occur in Otago and no resource consent shall be granted for these activities.

The definitions of these terms are consistent with the meaning given to them in the Resource Management Act. The Resource Management Act definitions of these terms are contained in the Glossary.

11.2.2 Notification of resource consents

Any resource consent application received by the Otago Regional Council must be **publicly notified** under Section 93 of the Act, unless provided for by Section 93(1), 94(1) or 94D. Public notification allows the community to be involved in assessing whether the proposed activity may cause adverse effects.

Some rules in this Plan expressly permit consideration of a resource consent application **without public notification** in accordance with Section 94D. An application may be notified even when rules in this Plan state that it may be non-notified, if the Council considers special circumstances exist, or if the applicant requests.

If the Council is satisfied that:

- The adverse effects of the proposed activity on the environment will be minor; and
- Every person who may be adversely affected by the activity has given written approval to the activity,

the application **may not be notified**. An application will be notified if the applicant requests, or the Council considers there are special circumstances.

If the Council is satisfied that:

- The adverse effects of the proposed activity on the environment will be minor; but
- All persons who may, in the opinion of the Council, be adversely affected by the activity have not given their written approval,

then notice of the application **may be served** on all persons who may be adversely affected, whether they have given their written approval or not. The application may not be publicly notified. However, the rules in this Plan may provide that notice for an application for resource consent for a controlled or restricted discretionary activity may not need to be served on affected persons.

11.2.3 Resource consent conditions

In granting a resource consent, the Otago Regional Council may include conditions on the consent in accordance with Section 108 of the Resource Management Act. Conditions can be used to ensure that any actual or potential effects of the activity on the environment are avoided, remedied or mitigated.

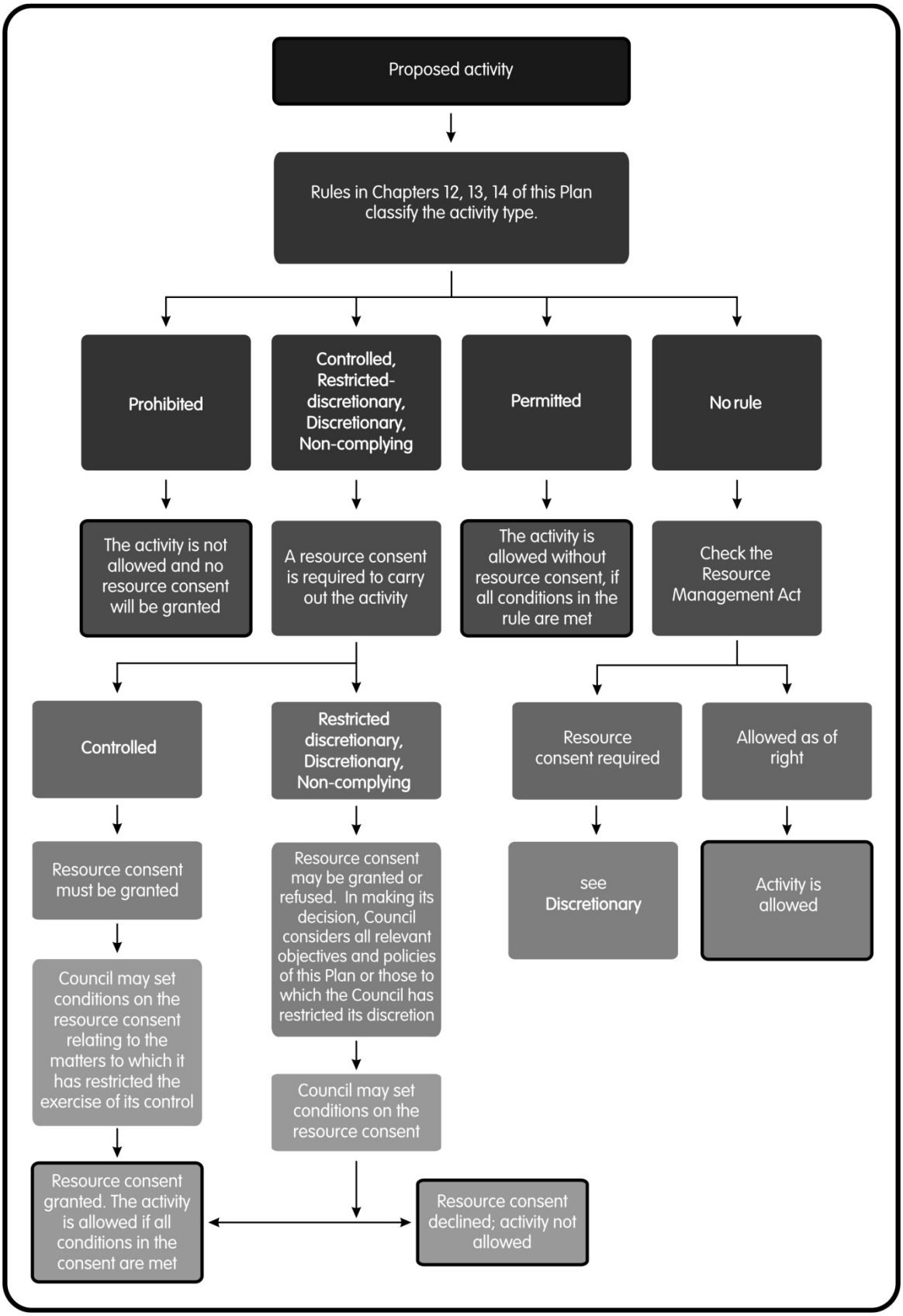


Figure 4: Key steps to determine whether a proposed activity is allowed

11.2.4 Index to the rules

Table 2 provides a guide to find the relevant rules for any particular activity.

Table 2: Index to Regional Plan: Water rules

If the activity involves any of the following	See the following rules of the Plan	
Water use and management		
Applications to take water	**12.0**	Applications to take surface water and groundwater
The taking of: • Surface water	**12.1**	The taking and use of surface water
• Groundwater	**12.2**	The taking and use of groundwater
The damming or diversion of water	**12.3**	The damming or diversion of water
The discharge of water or contaminants, in terms of:		
• Stormwater	**12.4**	Discharge of stormwater
• Drainage water	**12.5**	Discharge of drainage water
• Human sewage	**12.6**	Discharge of human sewage
• Pesticides	**12.7**	Discharge of pesticides
• Animal dip material	**12.8**	Discharge of agricultural waste and fertiliser
• Collected animal waste	**12.8**	Discharge of agricultural waste and fertiliser
• Feed pads, stand-off pads and sacrifice paddocks	**12.8**	Discharge of agricultural waste and fertiliser
• Fertilisers	**12.8**	Discharge of agricultural waste and fertiliser
• Drilling and bore testing	**12.9**	Discharges from drilling and bore testing
• Vessels	**12.10**	Discharges from vessels
• Water or tracer dye	**12.11**	Discharge of water or tracer dye
• Dams and reservoirs	**12.12**	Discharges from dams and reservoirs
• Other discharges	**12.13**	Discretionary discharge activities
A wetland identified in Schedule 9 or any wetland above 800 metres in altitude	**12.1 – 12.13**	Activities affecting water
A wetland identified in Schedule 10	**12.1.2.6** **12.3.2.2**	Taking of water for land drainage Diversion of water for land drainage
Land use on lake or river beds		
A structure	**13.1** **13.2** **13.3** **13.4**	The use of a structure The erection or placement of a structure The extension, alteration, replacement or reconstruction of a structure Demolition or removal of a structure
Disturbance of the bed of a lake or river	**13.5**	Alteration of the bed of a lake or river
Reclamation of the bed of a lake or river	**13.5**	Alteration of the bed of a lake or river
Deposition of substances onto or into the bed of a lake or river	**13.5**	Alteration of the bed of a lake or river
Vegetation:		
• Introduction of vegetation to the bed of a lake or river	**13.6**	The introduction or planting of vegetation
• Removal of vegetation from the bed of a lake or river	**13.7**	The removal of vegetation
Land use other than in lake or river beds		
The construction of a bore	**14.1**	Bore construction
Drilling	**14.2**	Drilling
Defences against water	**14.3**	The erection, placement, extension, alteration, replacement, reconstruction, demolition or removal of a defence against water
Structures other than defences against water	**14.4**	Structures other than defences against water

Note: District Plans may also have rules relating to these activities.

Although important, rules are not the only means of achieving the objectives of this Plan. Chapter 15 details methods other than rules that are intended to be used in this regard.

Decision: E1h

11.3 Relationship to other legislation and plans

11.3.1 Other legislation

Other legislation may have implications for the management of Otago water resources. This Plan does not replace or override that legislation, and nothing in these rules removes obligations under any other legislation, including the:

- Soil Conservation and Rivers Control Act 1941;
- Historic Places Trust Act 1993;
- Conservation Act 1987 and related legislation;
- Freshwater Fisheries Regulations 1983;
- Lake Wanaka Preservation Act 1973;
- Ngai Tahu Claims Settlement Act 1998;
- Local Government Acts 1974 and 2002;
- Biosecurity Act 1993;
- Building Act 2004, the Building Code and relevant Building Regulations;
- Health Act 1956;
- Transit New Zealand Act 1989;
- Crown Minerals Act 1991;
- Hazardous Substances and New Organisms Act 1996 and related regulations; and
- Trespass Act 1980.

11.3.1A Water conservation orders

Water permits or discharge permits granted under this Plan must be consistent with any relevant water conservation order. Those operative in Otago include:

- The Water Conservation (Kawarau River) Order 1997; and
- The Water Conservation (Mataura River) Order 1997.

Decision: E1e

11.3.2 District plans

District plans may also have rules dealing with the activities regulated by the rules in this Plan. District plans regulate subdivision and the effects of land use activities, including activities on the surface of water bodies. Nothing in this Plan affects any requirement for compliance with a district plan.

11.3.3 Regional plans

Other operative regional plans deal with air, the coast and waste. These plans also establish permitted activities or require resource consents for certain activities. The provisions of this Plan are in addition to the requirements of any other regional plan.

11.3.3.1 Regional Plan: Air

Consents may be required under the Regional Plan: Air for the following activities:

- Domestic heating;
- Burning of waste;
- Discharges from industrial or trade premises;
- Abrasive blasting;
- Discharges from factory farming;
- Discharges of agrichemicals; and
- Discharges of water vapour, heat and energy.

This Regional Plan: Water also deals with the discharge of some of the above contaminants, but only where they are discharged to water or land in circumstances which may result in a contaminant entering water.

11.3.3.2 Regional Plan: Coast

This Regional Plan: Water does not consider activities in the coastal marine area (from the line of mean high water springs out to 12 nautical miles). The line between the resources managed under this Plan and those managed under the Regional Plan: Coast, where a water body enters the coastal marine area, is shown in Schedule 12 of this Plan.

11.3.3.3 Regional Plan: Waste

Consents may be required under the Regional Plan: Waste for the following activities:

- The discharge of hazardous wastes;
- The disturbance of land at contaminated sites;
- The operation of facilities for the treatment or disposal of hazardous wastes;
- The discharge of oil or substances containing oil as a dust suppressant on formed roads;
- The discharge of contaminants from landfills (including farm landfills, cleanfill landfills, greenwaste landfills and offal pits); and
- The discharge of contaminants from composting and silage production.

This Regional Plan: Water does not deal directly with the above matters.

12

Rules: Water Take, Use and Management

12.0 Applications for taking water

12.0.1 Prohibited activity: No resource consent will be granted

12.0.1.1 An application to take water within primary allocation in a catchment where Policy 6.4.2(a)(ii) or (b)(ii) applies, by a person who does not hold the existing consent to take that water, is a ***prohibited*** activity.

12.0.1.2 An application to take water as primary allocation where that take would cause the primary allocation of a catchment to exceed the relevant limit in Policy 6.4.2, is a ***prohibited*** activity.

12.0.1.3 An application to take groundwater within the maximum allocation volume in an aquifer where Policy 6.4.10A(a)(i)(2) or (a)(ii)(2) applies, by a person who does not hold the existing consent to take that water, is a ***prohibited*** activity.

12.0.1.4 An application to take groundwater within the maximum allocation volume, where that take would cause the maximum allocation volume of an aquifer to exceed the limits in Policy 6.4.10A(a)(i)(1) or (a)(ii)(1), is a ***prohibited*** activity.

Principal reasons for adopting

These rules are adopted to expressly prohibit more water being allocated as primary allocation, or for groundwater within the maximum allocation volume, when the allocation already exceeds or would exceed the catchment or aquifer limit. Sections 124A-C of the Act cannot apply where no application can be received. Any further taking of surface water or connected groundwater must be from supplementary or further supplementary allocation, in order to assist in maintaining the aquatic ecosystem and natural character of source water bodies. The taking of groundwater beyond maximum allocation volumes is considered only where that take is immediately returned to the aquifer or connected surface water body.

Decisions: A3d, A3e, A5e, A5f

12.1 The taking and use of surface water

12.1.1 Prohibited activities: No resource consent will be granted

12.1.1.1 The taking and use of surface water from Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a ***prohibited*** activity for which no resource consent will be granted.

12.1.1.2 The taking and use of surface water for nuclear power generation or nuclear weapon manufacturing is a ***prohibited*** activity for which no resource consent will be granted.

12.1.2 Permitted activities: No resource consent required

12.1.2.0 The use of surface water for the purpose specified under an existing resource consent to take surface water, granted before 10 April 2010, is a ***permitted*** activity until the existing resource consent to take surface water:
(a) Lapses, is surrendered or expires; or
(b) Is replaced; or
(c) Is varied under Section 127 of the Act; or
(d) Is transferred under Section 136 (2)(b)(ii) of the Act.

Decision: B3a

12.1.2.1 The taking ~~or~~ and use of surface water for ~~an individual's reasonable~~ domestic needs or the ~~reasonable~~ needs of ~~an individual's~~ animals for drinking water is a ***permitted*** activity providing:
(a) No take is for a volume greater than 25,000 litres per day; and
(b) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1-A8), or greater than 1 litre per second elsewhere in Otago; and
(c) ~~that~~ The taking or use does not~~, or is not likely to,~~ have an adverse effect on the environment.

Decision: B5c

12.1.2.2 Except as provided for by Rule 12.1.1.2, the taking and use of surface water from the main stem of the Clutha/Mata-Au ~~and~~ or Kawarau Rivers, or ~~from~~ Lakes Wanaka, Hawea, Wakatipu, Dunstan ~~and~~ or Roxburgh, is a ***permitted*** activity, providing:
(a) The take does not exceed 100 litres per second, nor 1,000,000 litres per day; and
(b) No more than one such take occurs per landholding; and
(c) No back-flow of any contaminated water occurs to the water body; and
(d) Fish are prevented from entering the intake structure.

Decision: E1b

12.1.2.3 Except as provided for by Rule 12.1.1.2, the taking and use of surface water from any artificial lake is a ***permitted*** activity providing:

(a) The artificial lake was created under Rule 12.3.2.1 or under the Transitional Regional Plan rule constituted by General Authorisation 13, prior to 28 February 1998; and
(b) The water is taken by the owner of the dam structure, or the take is authorised by that owner.

12.1.2.4 Except as provided for by Rules 12.1.1.1 to 12.1.2.3, the taking and use of surface water for no more than 3 days in any one month, is a ***permitted*** activity, providing:
(a) The water is not used for irrigation, and
(b) The water is not taken from any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and
(c) No lawful take of water is adversely affected as a result of the taking; and
(d) No take is for a volume greater than 100,000 litres per day; and
(e) No take is at a rate greater than 10 litres per second; and
(f) No back-flow of any contaminated water occurs to the water body; and
(g) Fish are prevented from entering the intake structure; and
(h) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.1.4.9, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

12.1.2.5 Except as provided for by Rules 12.1.1.1 to 12.1.2.4, the taking and use of surface water is a ***permitted*** activity, providing:
(a) The water is not taken from any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and
(b) No lawful take of water is adversely affected as a result of the taking; and
(c) No take is for a volume greater than 25,000 litres per day at any landholding; and
(d) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1-A8), or greater than 1 litre per second elsewhere in Otago; and
(e) No back-flow of any contaminated water occurs to the water body; and
(f) Fish are prevented from entering the intake structure; and
(g) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.1.4.9, for the catchment or river, or part

of the catchment or river, at which the taking of water under this rule is occurring.

12.1.2.6 The taking of surface water for the purpose of land drainage is a ***permitted*** activity, providing:

(a) The water is not taken from, nor is there any alteration of the water level of, any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and
(b) The taking does not result in the lowering of the level of water in any lake or river; and
(c) The water is not taken from any wetland identified in Schedule 10; and
(d) The taking does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.1.3 Controlled activity: Consent required but always granted

12.1.3.1 The taking and use of surface water for community water supply, up to any volume or rate authorised as at 28 February 1998, by any take identified in Schedule 1B is a ***controlled*** activity.

In granting any resource consent for the taking and use of surface water in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

(a) Any need for a residual flow at the point of take; and
(b) Any need to prevent fish entering the intake; and
(c) The ~~means and~~ rate, volume, timing and frequency of the ~~take~~ water to be taken and used~~, and the rate of take~~; and
(d) The quantity of water required to meet the needs of the community; and
(da) The proposed method of take and delivery of the water taken; and
(e) The duration of the resource consent; and
(f) The information and monitoring requirements; and
(g) Any bond; and
(h) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Decisions: B3b, B2a, B4b

12.1.4 Restricted discretionary activities: Resource consent required

12.1.4.1 Except as provided for by Rule 12.1.2.3, ~~The~~ the taking and use of surface water from any lake or river which has already been delivered to that lake or river for the purpose of this subsequent taking is a ***restricted discretionary*** activity.

In considering any resource consent for the taking and use of water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) The amount of water which can be taken, having regard to the amount delivered to the lake or river and any losses that may have occurred between the point of augmentation and the take; and
(b) Any need to prevent fish entering the intake; and
(c) The duration of the resource consent; and
(d) The information and monitoring requirements; and
(e) Any bond; and

The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Note:
~~*Rules 12.1.4.2 to 12.1.4.7 below do not apply to the taking of surface water provided for by:*~~
~~*1. Section 14(3)(b) and (e) of the Act; or*~~
~~*2. Permitted and controlled activity rules in 12.1.2 and 12.1.3 above.*~~
Rules 12.1.4.2 to 12.1.4.7 below do not apply to the taking of surface water prohibited by rules in 12.0, or provided for by permitted and controlled activity rules in 12.1.2 and 12.1.3 above.
For taking water:
1. *From Lakes Dunstan, Hawea, Roxburgh, Wanaka, Wakatipu or the main stem of the Clutha/Mata-Au or Kawarau Rivers; or*
2. *Where all of the surface water or connected groundwater taken is immediately returned to the source water body; or*
3. *Where all of the water has been delivered to the source water body for the purpose of that subsequent take:*

Any take which does not meet the permitted activity standards is considered under Rules 12.1.4.1, 12.1.5.1 or in Section 12.1.6, as it is exempt from primary allocation in accordance with Policy 6.4.1.

Decisions: A3d, A3e, E1a, A3c, E1h

12.1.4.2 Taking and use of surface water as primary allocation in the following Schedule 2A catchment areas:
Lake Hayes (Map B1),
Welcome Creek (Map B3),
Kakanui (Map B3),
Waianakarua (Map B3),
Trotters (Map B3),
Shag (Map B3),
Taieri Catchment upstream of Paerau (Map B4),

Taieri Catchment Sutton to Outram (Maps B4 and B5),
Water of Leith (Map B5),
Waitahuna (Map B5), and
Lake Tuakitoto (Map B5):

(i) This rule applies to the taking of surface water, as primary allocation, in the above catchment areas, and subject to the minimum flows specified in Schedule 2A.

(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity, provided that, in the case of Welcome Creek, by itself or in combination with any other take, use, dam, or diversion, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2.

(iiA) The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iii) The conditions of all existing consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows ~~set~~ specified in Schedule 2A to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

Decisions: B10a, E1b

Table ~~12.1.4.4A~~ 12.1.4.2 *[Note: Table moved from below Rule 12.1.4.4A]*:
Annual allocation to activities
Note: units = millions of m^3 per year

	Town and Community water supply	**Industrial and commercial activities (outside municipal or town supply areas)**	**Tourism and recreational facilities**	**Agricultural and horticultural activities**	**Any other activities***	**Hydro-electricity generation***
Downstream of Waitaki Dam but downstream of Black Point	19	8.5	4.3	1100	144	All other flows except the flows that must remain in the rivers, pursuant to the environmental flow and level regimes

* Water taken or diverted and returned to the same water body in the vicinity of the take or diversion point, in the same condition and quality as taken, for fisheries and wildlife or micro hydro-electricity generation, does not need to be accounted for in the annual allocation to activities in Table ~~12.1.4.4A~~ 12.1.4.2.

Decision: B10b

12.1.4.3 Taking and use of surface water as ~~primary allocation or the first~~ supplementary allocation~~s~~ specified in Schedule 2B~~, in the Kakanui catchment area (Map B3)~~:

(i) This rule applies to the taking of surface water ~~in the Kakanui catchment area,~~

~~(a) As primary allocation as specified in Schedule 2A, subject to the minimum flows specified in Schedule 2A; and~~

~~(b) The taking of water~~ as supplementary allocation as specified in Schedule 2B, subject to the minimum flows specified in Schedule 2B~~:~~.

(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iiA) The taking and use of surface water in the Waitaki catchment to which this rule applies is a ***restricted discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversion, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.2 and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iii) The conditions of all existing consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows set in Schedule 2A or Schedule 2B to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

Decision: B10b

12.1.4.4 Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in the following Schedule 2A catchments:
Luggate Catchment (Map B1a),
Manuherikia Catchment Upstream of Ophir (Maps B2 and B4),
Taieri Catchment Paerau to Waipiata (Maps B2 and B4), and
Taieri Catchment Waipiata to Sutton (Maps B3 and B4):

(i) This rule applies to the taking of surface water, as primary allocation, in the above catchment areas, if the taking was the subject of a resource consent or other authority:
  (a) Granted before 28 February 1998, or
  (b) Granted after 28 February 1998, but was applied for prior to 28 February 1998; or
  (c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).

(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iii) The minimum flows set out in Schedule 2A of this Plan for the above catchments shall affect the exercise of every resource consent or other authority, of the kind referred to in paragraph (i) of this rule, in the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata and Waipiata to Sutton, upon review of consent conditions.

(iv) The conditions of all such consents will be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the minimum flows set by Schedule 2A to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9.

(v) The minimum flows set in Schedule 2A for the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and Taieri catchment areas Paerau to Waipiata and Waipiata to Sutton, shall not apply to any consents referred to in clause (i), paragraphs (a) to (c) of this rule until the review of consent conditions set out in clause (iv) of this rule occurs.

~~12.1.4.4A Taking of surface water from Welcome Creek applied for prior to 19 February 2005:~~

~~(i) This rule applies to the taking of surface water, if the taking was subject of a resource consent or other authority:~~
  ~~(a) Granted before 19 February 2005; or~~
  ~~(b) Granted after 19 February 2005, but applied for prior to 19 February 2005; or~~
  ~~(c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).~~

~~(iA) This rule applies to the taking of surface water, as primary allocation and subject to the minimum flows specified in Schedule 2A.~~

~~(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity provided that:~~

~~(a) By itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in the following Table 12.1.4.4A; and.~~

~~(b) It complies with the minimum flow set in (iii).~~

~~The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.~~

~~(iii) Takes to which this rule applies will be subject to a minimum flow equivalent to the 5-year 7-day low flow until the minimum flow has been determined by investigation and added to Schedule 2A by a plan change.~~

Decision: B10a

12.1.4.5 Taking and use of surface water as primary allocation applied for prior to 28 February 1998 in catchments not listed in Schedule 2A ~~and not in Welcome Creek~~:

(i) This rule applies to the taking of surface water, as primary allocation, in catchment areas not listed in Schedule 2A, if the taking was the subject of a resource consent or other authority:

(a) Granted before 28 February 1998, or

(b) Granted after 28 February 1998, but was applied for prior to 28 February 1998; or.

(c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).

(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iiA) The taking and use of surface water in the Waitaki catchment to which this rule applies is a ***restricted discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table ~~12.1.4.4A~~ 12.1.4.2. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iii) Takes to which this rule applies will not be subject to a minimum flow condition until the minimum flow has been determined by investigation and added to Schedule 2A by a plan change.

Note: If a minimum flow has been determined for a catchment previously not listed in Schedule 2A, and that minimum flow has been set by a plan change, the catchment will then be listed in Schedule 2A and Rule 12.1.4.2 or Rule 12.1.4.4 will apply.

Decision: B10b

12.1.4.6 Taking and use of surface water as a new primary allocation take in catchment areas not listed in Schedule 2A ~~and not in Welcome Creek~~:

(i) This rule applies to the taking of surface water as primary allocation in catchment areas not listed in Schedule 2A, and not subject to Rule 12.1.4.5.

(ii) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iiA) The taking and use of surface water in the Waitaki catchment to which this rule applies is a ***restricted discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table ~~12.1.4.4A~~ 12.1.4.2. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(iii) Minimum flows for catchments not listed in Schedule 2A will be set on a case-by-case basis such that any minimum flow set will allow the taking of water, while providing for the aquatic ecosystems and natural character of the catchment water bodies and the taking to be subject to Rule 12.1.4.9.

(iv) The minimum flows set on a case-by-case basis will continue to apply until investigations have established the appropriate minimum flow. The new minimum flow will be added to Schedule 2A by a plan change and Rule 12.1.4.2 or Rule 12.1.4.4 will then apply.

Decision: B10b

12.1.4.7 Taking and use of surface water as supplementary allocation in any catchment other than ~~the Kakanui catchment area and Welcome Creek~~ a Schedule 2B catchment:

(i) This rule applies to the taking of surface water as supplementary allocation for any catchment area, except ~~the Kakanui~~ for any Schedule 2B catchment as set out in clause (ii) below, subject to the minimum flows set in paragraph (iii) below.

(ii) This rule does not apply to the taking of any surface water that is in addition to the first supplementary allocation provided for by Schedule 2B, for ~~the Kakanui~~ any catchment area in Rule 12.1.4.3.

(iii) The taking of surface water as supplementary allocation for any catchment is subject to a minimum flow which is not less than either:

(a) 50% of the natural flow at the point of take, or, if a resource consent so provides, not less than 50% of the natural flow at a point specified in the resource consent; or

(b) The natural mean flow at the point of take, or, if a resource consent so provides, not less than the natural mean flow at a point specified in the resource consent,

as the Otago Regional Council determines in granting a resource consent.

(iv) The taking and use of surface water to which this rule applies is a ***restricted discretionary*** activity, and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(ivA) The taking and use of surface water in the Waitaki catchment to which this rule applies is a ***restricted discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table ~~12.1.4.4A~~ 12.1.4.2 and is subject to Rule 12.1.4.9. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

(v) This rule shall affect the exercise of any resource consent which was either:

(a) Granted before 28 February 1998; or

(b) Granted after 28 February 1998 but was applied for prior to 28 February 1998,

for the taking of surface water where a condition on the consent requires the take to be suspended at a minimum flow higher than that which would be set by Schedule 2A.

(vi) The conditions of all such resource consents will be reviewed under Sections 128 to 132 of the Act to enable the minimum flows in paragraph (iii)(a) or (iii)(b) of this rule to be met, the volume and rate of take to be measured in accordance with Policy 6.4.16 and the taking to be subject to Rule 12.1.4.9, as soon as practicable after the Plan becomes operative.

Decision: B10b

12.1.4.8 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of ~~surface~~ water in terms of Rules 12.1.4.2 to 12.1.4.7 and 12.2.3.1A, the Otago Regional Council will restrict the exercise of its discretion to the following:

~~(a)~~(i) The ~~amount~~ rate, volume, timing and frequency of water to be taken and used; and

~~(m) The means and timing of the take, and the rate of take; and~~

~~(n) The quantity of water required for the intended use; and~~

(iv) The proposed methods of take, delivery and application of the water taken; and

(iii) The source of water available to be taken; and

(iv) The location of the use of the water, when it will be taken out of a local catchment; and

(v) Competing lawful local demand for that water; and

~~(b)~~(vi) The primary and supplementary allocation limits for the catchment; and

~~(c)~~(vii) Whether the proposed take ~~comes as~~ is primary or supplementary allocation for the catchment; and

(viii) Any arrangement for cooperation with other takers or users; and

(ix) Any water storage facility available for the water taken, and its capacity; and

~~(d)~~(x) The minimum flow to be applied to the take of water, if consent is granted; and

~~(e)~~(xi) Where the minimum flow is to be measured, if consent is granted; and

~~(f)~~(xii) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and

(xiii) Any actual or potential effects on any groundwater body; and

(xiv) The consent being exercised or suspended in accordance with any Council approved rationing regime; and

~~(g) Any adverse effect on any lawful priority attached to any resource consent or deemed permit; and~~

~~(h) Whether the taking of water under a water permit should be restricted to allow the taking or damming of water under any other permit, and~~

~~(i)~~(xv) Any need for a residual flow at the point of take; and

~~(j)~~(xvi) Any need to prevent fish entering the intake; and

~~(k)~~(xvii) Any adverse effect on a significant wetland value identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

~~(l)~~(xviii) Any financial contribution for Type B wetland values that are adversely affected; and

~~(o)~~(xix) The duration of the resource consent; and

~~(p)~~(xx) The information, ~~and~~ monitoring and metering requirements; and

~~(q)~~(xxi) Any bond; and

~~(r)~~(xxii) The review of conditions of the resource consent; and

~~(s)~~(xxiii) For resource consents in the Waitaki catchment the matters in ~~(a) to (r)~~ (i) to (xxv) above, as well as matters in Policies 6.6A.1 to 6.6A.6; and

(xxiv) Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit.

[Note: The above list will be reordered and renumbered before becoming operative.]

Notification and written approvals

(a)~~(i)~~ Applications for resource consent to which this Rule applies, to take and use water from a river, may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity, if the application is to take and use water from:

~~(a)~~(i) A river for which a minimum flow has been set by or under this Plan; or

~~(b)~~(ii) A river for which it is not necessary for the Council to consider whether, if consent is granted, the taking should be subject to a condition requiring a residual flow to remain in the river at the point of take, or a condition requiring other provision for native fish, other than a condition requiring fish screening.

Other applications for resource consent to take and use water from a river may be considered without notification

under Section 93 of the Resource Management Act in those circumstances in which the Act allows applications to be considered on a non-notified basis.

(b)~~(ii)~~Applications for resource consent to which this rule applies, to take and use water from a water body other than a river, may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Decisions: E1b, A2c, B2a, A3g, B4b, C1d, B7a, B9a

12.1.4.9 The suspension of takes

It is a term of any taking of surface water under Rules 12.1.2.4, 12.1.2.5 and 12.1.4.2 to 12.1.4.7 that, when the flow is equal to or less than a minimum flow applied by or under these rules, the Council may, by public notice, suspend all ~~takes~~ taking to enable the minimum flow to be met ~~that are subject to that minimum flow shall cease~~.

For catchments that have access to flow information via the "Water Info" telephone service, the taking of water under those consents shall cease automatically (without notification by Council) when the flow is at or below the minimum set in Schedule 2A or 2B until the flow again exceeds the minimum flow specified in Schedule 2A or 2B.

For catchments or parts of catchments where there is no access to flow information via the "Water Info" telephone service, the Council will notify the consent holders in those catchments that the taking of water shall cease. The Otago Regional Council will suspend takes in these catchments, or parts of catchments, by public notification through public media (newspaper, radio, television) until further notice that taking can recommence.

12.1.5 Discretionary activities: Resource consent required

12.1.5.1 Except as provided for by Rules 12.1.1.1 to 12.1.4.7, and except in the Waitaki catchment, the taking and use of surface water is a ***discretionary*** activity.

12.1.6 Non-complying activities: Resource consent required

12.1.6.1 Except as provided for by Rules 12.1.1.2 to 12.1.5.1 and ~~in Rule~~ 12.1.6.2, the taking and use of surface water in the Waitaki catchment when, by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rules 12.1.4.5 to 12.1.4.7 is a ***non-complying*** activity.

In considering an application to which this rule applies the consent authority will have regard, among other matter to Policies 6.6A.1 to 6.6A.5.

Decision: E1h

12.1.6.2 Except as provided for by Rule 12.1.1.2 the ~~The~~ taking and use of surface water from Welcome Creek is a ***non-complying*** activity when:

(i) By itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rule ~~12.1.4.4A~~ 12.1.4.2; and

(ii) The take does not comply with the minimum flow ~~set out in Rule 12.1.4.4A(iii)~~ specified in Schedule 2A.

In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

Decisions: E1h, B10a

Principal reasons for adopting

The taking and use of water can only occur if it is expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

Rule 12.1.1.1 is adopted to prohibit takes of water from Lake Tuakitoto when the minimum level established by this Plan is in force. This rule continues the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

Rule 12.1.1.2 is adopted to provide for and be fully consistent with Policy 12.5.1 of the Regional Policy Statement for Otago. The rule prohibits all taking of surface water for use in nuclear power generation plants and in nuclear weapons manufacturing.

Rule 12.1.2.0 is adopted to permit the use of surface water taken under a resource consent granted prior to 10 April 2010.

The taking and use of surface water under Rules 12.1.2.1 to 12.1.2.6 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person taking water. These rules are adopted to enable access to resources while providing protection for those values and uses.

The taking and use of surface water for existing community water supply ~~takes~~ identified in Schedule 1B is a controlled activity in order that the needs of Otago's communities can continue to be met.

Where surface water that is to be taken and used has been specifically supplied from an augmentation scheme, the Council only needs to consider what portion of that water is still available to be taken, and the quantity of water required for the intended purpose of use. Therefore the taking and use of water, delivered for the purpose of that subsequent taking, is a restricted discretionary activity.

The taking of surface water within the primary and supplementary allocation limits identified in this Plan will be subject to minimum flows which will protect aquatic ecosystems and natural character. As such, the Council has restricted the exercise of its discretion when considering applications for resource consents under Rules 12.1.4.1 and 12.1.4.2 to 12.1.4.7, to take and use water. Any other activity involving the taking and use of surface water is either a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity rules were added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

~~Because the Manuherikia and the Taieri catchments are substantially over-allocated, no provision has been made to allocate more water as primary allocation under Rule 12.1.4.4 in the specified areas of these catchments. The primary allocations in accordance with Policy 6.4.2(a)(i) (shown in Schedule 2A) and current primary allocations in accordance with Policy 6.4.2(a)(ii) are:~~

~~Catchment (from mouth to headwaters)~~	~~Primary Allocation as per Schedule 2A~~	~~Estimated primary allocation as at 28 February 1998~~
~~Manuherikia~~	~~3,200 litres/sec~~	~~27,700 litres/sec~~
~~Taieri~~	~~4,860 litres/sec~~	~~14,400 litres/sec~~

~~It is considered that no further primary allocation will be available in either of these over-allocated catchments within the life of this Plan.~~

Decisions: B3a, A3d

12.2 The taking and use of groundwater

Note: The construction or alteration of ~~a~~ any bore for taking groundwater requires a resource consent under Rule 14.1.1.

Decision: E1b

12.2.1 Prohibited activities: No resource consent will be granted

12.2.1.1 The taking and use of groundwater for nuclear power generation or nuclear weapon manufacturing is a ***prohibited*** activity for which no resource consent will be granted.

12.2.1.2 The taking and use of groundwater from within 100 metres of Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a

prohibited activity for which no resource consent will be granted.

12.2.2 Permitted activities: No resource consent required

12.2.2.0 The use of groundwater for the purpose specified under an existing resource consent to take groundwater, granted before 10 April 2010, is a ***permitted*** activity until the existing resource consent to take groundwater:

(a) Lapses, is surrendered or expires; or

(b) Is replaced; or

(c) Is varied under Section 127 of the Act; or

(d) Is transferred under Section 136 (2)(b)(ii) of the Act.

Decision: B3a

12.2.2.1 The taking ~~or~~ and use of groundwater for ~~an individual's reasonable~~ domestic needs or the ~~reasonable~~ needs of ~~an individual's~~ animals for drinking water is a ***permitted*** activity providing:

(a) No take is for a volume greater than 10,000 litres per day; and

(b) No take is at a rate greater than 1.5 litres per second; and

(c) ~~that~~ The taking or use does not~~, or is not likely to,~~ have an adverse effect on the environment.

Decision: B5c

12.2.2.2 Except as provided for by Rules 12.2.1.1 to 12.2.2.1, ~~The~~ the taking and use of groundwater is a ***permitted*** activity, providing:

(a) No lawful take of water is adversely affected as a result of the taking; and

(aa) The water is not taken from any aquifer identified in Schedule 2C; and

(ab) The water is not taken from within 100 metres of any wetland, lake or river; and

(b) The take is for a rate no greater than 1.5 l/s, and a volume no greater than 10,000 litres per day, at any landholding, from the following aquifers:

(i) *[Repealed]* ~~Kakanui-Kauru Alluvium (as identified on Map C10);~~

(ii) *[Repealed]* ~~Shag Alluvium (as identified on Map C11);~~

(iii) Roxburgh Basin (as identified on Map C12);

(iv) Manuherikia Claybound (as identified on Map C4);

(v) Dunstan Flats Groundwater Zone B (as identified on Map C4);

(vi) Manuherikia Alluvium (as identified on Map C4); and

(vii) Wakatipu Basin (as identified on Map C2); and

(c) The take is for a rate no greater than 2.5 l/s, and a volume no greater than 30,000 litres per day, at any landholding, from the following aquifers:
  (i) Lower Waitaki Plains Groundwater Protection Zone B (as identified on Map C9);
  (ii) Lower Taieri (as identified on Map C15);
  (iii) Kuriwao Basin (as identified on Map C16);
  (iv) Pomahaka Basin (as identified on Maps C13 and C14);
  (v) Earnscleugh Terrace (as identified on Map C4);
  (vi) Dunstan Flats Groundwater Zone A (as identified on Map C4);
  (vii) Maniototo Tertiary (as identified on Maps C5-C8);
  (viii) Cromwell Terrace (as identified on Map C3);
  (ix) Hawea Basin (as identified on Map C1);
  (x) Wanaka Basin Cardrona Gravel (as identified on Map C1);
  (xi) Papakaio (as identified on Map D1); and

(d) The take is for a rate no greater than 3.5 l/s, and a volume no greater than 50,000 litres per day, at any landholding, from the following aquifers:
  (i) Lower Waitaki Plains Groundwater Protection Zone A (as identified on Map C9); and
  (ii) Inch Clutha Gravel (as identified on Map C17); and

(e) Except as provided by Conditions (b) to (d) above, the take is for a rate no greater than 1.5 l/s, and a volume no greater than 25,000 litres per day, at any landholding, elsewhere in Otago; and

(f) No back-flow of any contaminated water occurs to the aquifer; and

(g) The taking of groundwater is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the aquifer from which the taking of water under this rule is occurring.

Decision: E1a

12.2.2.3 The taking of groundwater for the purpose of down-hole pump testing is a ***permitted*** activity, providing:

(a) The take does not exceed 20 litres per second and is carried out for a period of no longer than three consecutive days; and

(b) No lawful take of water is adversely affected as a result of the taking.

12.2.2.4 Except as provided for by Rule 12.2.1.1, the taking and use of groundwater from within 100 metres of the main stem of the Clutha/Mata-Au or Kawarau Rivers, or from within 100 metres

of Lakes Wanaka, Hawea, Wakatipu, Dunstan or Roxburgh, is a ***permitted*** activity, providing:

(a) The take does not exceed 100 litres per second, nor 1,000,000 litres per day; and

(b) No more than one such take occurs per landholding; and

(c) No back-flow of any contaminated water occurs to the water body; and

(d) The take is not within 100 metres of any wetland or other lake or river; and

(e) No lawful take of water, and no wetland or other lake or river, is adversely affected as a result of the taking.

Decisions: B3c, E1b, B11b

12.2.2.5 Except as provided for by Rules 12.2.1.1 to 12.2.2.4, the taking and use of groundwater from:

(i) Any aquifer listed in Schedule 2C; or

(ii) Within 100 metres of any wetland, lake or river,

for no more than 3 days in any one month, is a ***permitted*** activity, providing:

(a) The water is not used for irrigation; and

(b) The water is not taken from any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(c) No lawful take of water is adversely affected as a result of the taking; and

(d) No take is for a volume greater than 100,000 litres per day; and

(e) No take is at a rate greater than 10 litres per second; and

(f) No back-flow of any contaminated water occurs to the water body; and

(g) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

Decision: B3c

12.2.2.6 Except as provided for by Rules 12.2.1.1 to 12.2.2.5, the taking and use of groundwater from:

(i) Any aquifer listed in Schedule 2C; or

(ii) Within 100 metres of any wetland, lake or river,

is a ***permitted*** activity, providing:

(a) The water is not taken from any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(b) No lawful take of water is adversely affected as a result of the taking; and
(c) No take is for a volume greater than 25,000 litres per day at any landholding; and
(d) No take is at a rate greater than 0.5 litres per second in the North Otago, Maniototo or Central Otago subregions (as identified on Maps A1–A8), or greater than 1 litre per second elsewhere in Otago; and
(e) No back-flow of contaminated water occurs to the water body; and
(f) The taking of surface water is not suspended.

The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water as primary allocation, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the catchment or river, or part of the catchment or river, at which the taking of water under this rule is occurring.

Decision: B3c

12.2.2.A Controlled activity: Consent required but always granted

12.2.2A.1 The taking and use of groundwater for community water supply, up to any volume or rate authorised as at 28 February 1998, by any take identified in Schedule 3B is a ***controlled*** activity.

In granting any resource consent for the taking and use of groundwater in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:
(a) Any need for a residual flow at the point of take; and
(aa) The rate, volume, timing and frequency of the water to be taken and used; and
(b) The quantity of water required to meet the needs of the community; and
(ba) The proposed methods of take and delivery of the water taken; and
(c) The duration of the resource consent; and
(d) The information and monitoring requirements; and
(e) Any bond; and
(f) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Decisions: B3b, B12d, B2a, E1b, B4b

12.2.3 Restricted discretionary activities: Resource consent required

12.2.3.1 *[Repealed]* ~~The taking of groundwater from the Shag and Kakanui-Kauru Alluvium Aquifers:~~

~~(i) The minimum flows in this rule apply to the taking of groundwater from the Shag Alluvium Aquifer (as identified on Map C11), and from the Kakanui-Kauru Alluvium Aquifer (as identified on Map C10), under a resource consent.~~

~~(ii) This rule does not apply to any taking of groundwater provided for by:~~

~~(a) Section 14(3)(b) and (e) of the Act; or~~

~~(b) Rules 12.2.2.1 to 12.2.2.3; or~~

~~(c) A resource consent for any taking of groundwater that is the subject of Rule 12.2.3.2, 12.2.3.3 or 12.2.4.1.~~

~~(iii) The taking of groundwater from:~~

~~(a) The Shag Alluvium Aquifer, is subject to the minimum flow set in Schedule 2A for the Shag catchment area; or~~

~~(b) The Kakanui-Kauru Alluvium Aquifer, is subject to the minimum flow set in Schedule 2A for the Kakanui catchment area,~~

~~if the taking of groundwater was established under a resource consent or other authority:~~

~~(c) Granted before 28 February 1998, or~~

~~(d) Granted after 28 February 1998, but was applied for prior to 28 February 1998; or.~~

~~(e) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).~~

~~(iv) Except as provided in paragraph (iii) of this rule, the taking of groundwater from the Shag Alluvium Aquifer is subject to a minimum flow which is not less than either:~~

~~(a) 50% of the natural flow of the associated river at a point specified in a resource consent; or~~

~~(b) The natural mean flow of the associated river at a point specified in a resource consent,~~

~~as the Otago Regional Council determines in granting a resource consent.~~

~~(v) Except as provided in paragraph (iii) of this rule, the taking of groundwater within the first supplementary allocations specified in Schedule 2B from the Kauru-Kakanui Alluvium Aquifer is subject to minimum flows specified in Schedule 2B.~~

~~(vi) The taking of groundwater, subject to Rule 12.2.3.5 and:~~

~~(a) Subject to a minimum flow set in accordance with paragraph (iii) of this rule; or~~
~~(b) Subject to a minimum flow set in accordance with paragraph (iv) or (v) of this rule,~~
~~is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.~~

~~(vii) This rule shall affect the exercise of any resource consent which was either:~~
~~(a) Granted before 28 February 1998; or~~
~~(b) Granted after 28 February 1998 but was applied for prior to 28 February 1998; or~~
~~(c) Granted to replace a resource consent of the kind referred to in paragraph (a) or (b),~~
~~for the taking of groundwater from the Shag or Kakanui-Kauru Alluvium Aquifers. The conditions of all such resource consents will be reviewed under Sections 128 to 132 of the Act to enable the minimum flows in paragraph (iii) or (iv) of this rule to be met, the volume and rate of take to be measured in accordance with Policy 9.4.22 and the taking to be subject to Rule 12.2.3.5 as soon as practicable after the Plan becomes operative.~~

Decision: E1a

12.2.3.1A The taking of groundwater from any Schedule 2C aquifer or from within 100 metres of any connected perennial surface water body, and the use of that groundwater, is a ***restricted discretionary*** activity, if all the standards and terms set out under Rules 12.1.4.1 to 12.1.4.7 that apply to the proposed taking and use are met, as if the take is surface water, except that any date should be read as 10 April 2010.

The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.1.4.8.

Decisions: A2c, E1a, E1h, A5e

12.2.3.2 *[Repealed]* ~~Taking of groundwater from the aquifers identified in Schedule 4, applied for prior to 28 February 1998:~~
~~(i) This rule applies to the taking of groundwater, from the aquifers identified in Schedule 4, if the taking was established under a resource consent or other authority:~~
~~(a) Granted before 28 February 1998; or~~
~~(b) Granted after 28 February 1998 but was applied for prior to 28 February 1998; or~~
~~(c) Granted to replace a resource consent or authority of the kind referred to in paragraph (a) or (b).~~

~~(ii) This rule does not apply to any taking of groundwater provided for by:~~
~~(a) Section 14(3)(b) and (e) of the Act; or~~
~~(b) Rules 12.2.2.1 to 12.2.2.3; or~~
~~(c) A resource consent for any taking of groundwater that is the subject of Rule 12.2.3.1, 12.2.3.3 or 12.2.4.1.~~

~~(iii) The taking of groundwater to which this rule applies is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.~~

~~(iv) Except as provided for in paragraph (v) of this rule, the restriction levels set by Schedule 4, and Rule 12.2.3.5, do not apply to the taking of groundwater under this rule.~~

~~(v) Within the period from 2 October 2001 to 2 October 2021, the restriction levels set by paragraph (iv) of Rule 12.2.3.3 shall affect the exercise of every resource consent or other authority, of the kind referred to in paragraph (i) of this rule. The conditions of all such consents may be reviewed by the Otago Regional Council under Sections 128 to 132 of the Act to enable the restriction levels set by Schedule 4 to be met, the volume and rate of take to be measured in accordance with Policy 9.4.22 and the taking to be subject to Rule 12.2.3.5.~~

Decision: E1a

12.2.3.2A Except as provided for by 12.2.3.1A, the taking and use of groundwater is a ***restricted discretionary*** activity, if:
(a) The volume sought is within:
(i) The maximum allocation volume identified in Schedule 4A; or
(ii) 50% of the calculated mean annual recharge for any aquifer not specified in Schedule 4A; or
(iii) That specified on a resource consent granted before 10 April 2010, or the take applied for is a volume equal to or less than that on the existing consent; and
(b) It is subject to aquifer restriction levels identified in Schedule 4B; and
(c) Where the rate of surface water depletion is greater than 5 l/s, as calculated using Schedule 5A:
(i) Primary surface water allocation is available; and
(ii) For the Waitaki catchment, allocation to activities set out in Table 12.1.4.2 is available.

The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.

Decisions: A5e, E1a, E1b, B10b

12.2.3.3 *[Repealed]* ~~Other taking of groundwater from the aquifers identified in Schedule 4:~~

~~(i) Except as provided for by Rule 12.2.3.2, this rule shall affect any take of groundwater from the aquifers identified in Schedule 4.~~

~~(ii) The restriction levels in this rule apply to the taking of groundwater, under a resource consent, from the aquifers identified in Schedule 4.~~

~~(iii) This rule does not apply to any taking of groundwater provided for by:~~

~~(a) Section 14(3)(b) and (e) of the Act; or~~

~~(b) Rules 12.2.2.1 to 12.2.2.3; or~~

~~(c) A resource consent for any taking of groundwater that is the subject of Rule 12.2.3.1, 12.2.3.2 or 12.2.4.1.~~

~~(iv) The taking of groundwater subject to Rule 12.2.3.5 and subject to the restriction levels set by Schedule 4 is a ***restricted discretionary*** activity. The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.~~

Decision: E1a

12.2.3.4 Restricted discretionary activity considerations

In considering any resource consent for the taking and use of groundwater in terms of ~~Rules~~ Rule ~~12.2.3.1,~~ 12.2.3.2A ~~and 12.2.3.3~~, the Otago Regional Council will restrict the exercise of its discretion to the following:

~~(a)~~(i) The ~~amount~~ rate, volume, timing and frequency of ~~water~~ groundwater to be taken and used; and

~~(i) The means and timing of the take, and the rate of take; and~~

~~(j) The quantity of water required for the intended use; and~~

(ii) The proposed methods of take, delivery and application of the groundwater taken; and

(iii) The source of groundwater available to be taken; and

(iv) The location of the use of the groundwater, when it will be taken out of a local catchment; and

(v) Any arrangement for cooperation with other takers or users; and

(vi) Any water storage facility available for the groundwater taken, and its capacity; and

~~(b)~~(vii) In the case of takes from an aquifer identified in Schedule 4B, the restriction levels for the aquifer~~,~~ (as

identified in that schedule,) to be applied to the take of groundwater, if consent is granted; and

~~(c) Any adverse effect on a connected surface water body; and~~

~~(d) In the case of takes from the Shag and Kakanui-Kauru Alluvium Aquifers, the primary and supplementary allocation limits for the catchment area, including any identified in Schedule 2; and~~

~~(e) In the case of takes from the Shag and Kakanui-Kauru Alluvium Aquifers, the minimum flows to be applied to the take of water, if consent is granted, including any identified in Schedule 2; and~~

~~(f) In the case of takes from the Shag and Kakanui-Kauru Alluvium Aquifers, where the minimum flow is to be measured, if consent is granted; and~~

~~(g)~~(viii) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and

(ix) Any actual or potential effects on any surface water body; and

(x) Whether any part of the take would constitute allocation from any connected perennial surface water body, and the availability of that allocation; and

(xi) The consent being exercised or suspended in accordance with any Council approved rationing regime; and

~~(h)~~(xii) Any adverse effect on the existing quality of groundwater in the aquifer; and

(xiii) Any adverse effect on a significant wetland value identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(xiv) Any financial contribution for Type B wetland values that are adversely affected; and

~~(k)~~(xv) The duration of the resource consent; and

~~(l)~~(xvi) The information, ~~and~~ monitoring and metering requirements; and

~~(m)~~(xvii) Any bond; and

~~(n)~~(xviii) The review of conditions of the resource consent~~.~~ ; and

(xix) For resource consents in the Waitaki Catchment the matters in (i) to (xxi) above, as well as matters in Policies 6.6A.1 to 6.6A.6; and

(xx) Whether the talking of water under a water permit should be restricted to allow the exercise of another water permit.

[Note: The above list will be reordered and renumbered before becoming operative.]

Notification and written approvals

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Decisions: B2a, B4b, E1b, C1d, A2c, B7a, E1h, B9a

12.2.3.5 The suspension of takes

(i) It is a term of any taking of groundwater under ~~Rule~~ Rules 12.2.~~3.1~~2.5, 12.2.2.6 and 12.2.3.1A that, when the flow in the ~~Shag or Kakanui Rivers~~ catchment in which the take occurs is equal to or less than a minimum flow set by or under ~~that~~ these ~~rule~~ rules, the Council may, by public notice, suspend all ~~takes~~ taking to enable the minimum flow to be met ~~that are subject to that minimum flow shall cease~~.

These catchments have access to flow information via the "Water Info" telephone service, and the taking of water under those consents shall cease automatically (without notification by Council) when the flow is at or below the minimum set in Schedule 2A ~~or 2B~~ until the flow again exceeds the minimum flow specified in Schedule 2A ~~or 2B~~.

(ii) It is a term of any taking of groundwater under Rule 12.2.2.2 ~~12.2.3.3~~ that, when the aquifer levels are equal to or less than those set by those rules, the Otago Regional Council may, by public notice, suspend the taking of groundwater to enable the restrictions to be met.

(iii) Any notice given under paragraph (i) or (ii) of this rule comes into force on the date specified in the notice and continues in force until revoked by public notice. Any notice may relate to one or more catchments or aquifers.

12.2.4 Discretionary activities: Resource consent required

12.2.4.1 (i) Except as provided for by Rules 12.2.1.1 to 12.2.3.5 the taking and use of groundwater is a ***discretionary*** activity.

(iA) The taking and use of groundwater in the Waitaki catchment to which this rule applies is a ***discretionary*** activity provided that by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table ~~12.1.4.4A~~ 12.1.4.2. In considering an application to which this rule applies, the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

Decision: B10b

12.2.5 Non-complying activities: Resource consent required

12.2.5.1 Except as provided for by Rule 12.2.1.1, the taking and use of groundwater in the Waitaki catchment when, by itself or in combination with any other take, use, dam or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rule 12.2.4.1 is a ***non-complying*** activity. In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

Decisions: A5e, A5f

Principal reasons for adopting

The taking and use of ~~water~~ groundwater can only occur if ~~it is~~ they are expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

Rule 12.2.1.1 is adopted to provide for and be fully consistent with Policy 12.5.1 of the Regional Policy Statement for Otago. The rule prohibits all taking of groundwater for use in nuclear power generation plants and in nuclear weapons manufacturing.

Rule 12.2.1.2 is adopted to prohibit takes of water from Lake Tuakitoto when the minimum level established by this plan is in force. This rule continues the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

Rule 12.2.2.0 is adopted to permit the use of groundwater take under a resource consent granted prior to 10 April 2010.

The taking and use of groundwater under Rules 12.2.2.1 ~~and 12.2.2.3~~ to 12.2.2.6 will have no more than minor adverse effects on the aquifer from which the water is taken, any ~~connected surface water body~~ wetland, lake or river, or on any other person taking water. These rules are adopted to enable access to resources while providing protection for the existing consumptive uses of the groundwater.

The taking and use of groundwater under Rule 12.2.2A.1 for existing community water supply takes identified in Schedule 3B is a controlled activity in order that the needs of Otago's communities can continue to be met.

The taking of groundwater under Rule 12.2.3.1A is treated as surface water taking, subject to the standards and terms in the specified surface water rules, which include the minimum flows that apply in the relevant

catchments. This will maintain surface water levels and the groundwater volume of the aquifers, protect aquifer ecosystems and natural character, while ensuring recognised uses can continue.

The taking of groundwater under Rule 12.2.3.2A, is treated as the taking of groundwater and part surface water, where surface water depletion is greater than 5 l/s. This will maintain the levels identified for the specified aquifers and the groundwater volume of the aquifers, while ensuring the aquifers' recognised uses can continue. This will also ensure that the effect of the take on the surface water body is recognised.

~~The taking of groundwater from the aquifers identified in Rules 12.2.3.1 to 12.2.3.5, above the minimum flows in the specified connected rivers, or above the levels identified for the specified aquifers, will maintain the groundwater volume of the aquifers and will ensure the aquifers' recognised uses can continue.~~

~~As such, the~~ The Council has restricted the exercise of its discretion when considering applications for resource consents under Rules 12.2.3.1A and 12.2.3.2A ~~to 12.2.3.5~~.

Any other activity involving the taking of groundwater is either a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity rules were added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

Decisions: E1b, B3a, B3c, A2c

12.3 The damming or diversion of water

Note: The erection of a dam in the bed of a lake or river is covered by Rules 13.2.1.3 and 13.2.3.1.

12.3.1 Prohibited activities: No resource consent will be granted

12.3.1.1 The damming of the following rivers is a ***prohibited*** activity for which no resource consent will be granted:

(a) Kawarau River main stem from Scrubby Stream to the Lake Wakatipu control gates (F41:035680 to F41:738667);

(b) Shotover River main stem at or about F41:765680 to E40:662173);

(c) Dart River/Te Awa Whakatipu main stem from Lake Wakatipu to confluence with Beans Burn (at or about E41:438853 to E40:375077);

(d) Rees River main stem from Lake Wakatipu to confluence with Hunter Creek (at or about E41:448852 to E40:499117); and

(e) Diamond Lake, Diamond Creek and Lake Reid (at or about E40:435975; E40:444963 to E40:450918).

12.3.1.2 The damming of Lake Wanaka and of the Upper Clutha River/Mata-Au between F40:050089 to F40:088067, other than for the duration of an emergency as declared by the Guardians of Lake Wanaka under the Lake Wanaka Preservation Act 1973, is a ***prohibited*** activity for which no resource consent will be granted.

Decision: E1b

12.3.1.3 The damming of the following rivers, other than for stockwater supply purposes, is a ***prohibited*** activity for which no resource consent will be granted:

(a) Pomahaka River, including its tributaries, from its sources to its confluence (G45:447454) with the Clutha River/Mata-Au;

(b) Waipahi River from its source to its confluence (G45:194520) with the Pomahaka River; and

(c) Lower Clutha River/Mata-Au from its confluence (G45:447454) with the Pomahaka River to the sea at the mouths of the Matau and Koau Branches.

Decision: E1b

12.3.1.4 The diversion of surface water from Lake Tuakitoto when the level of the lake is below 100.77 metres above datum, during the period beginning 30 September in any year and ending 16 May in any following year, is a ***prohibited*** activity for which no resource consent will be granted.

12.3.2 Permitted activities: No resource consent required

12.3.2.1 Except as provided for by Rules 12.3.1.1 to 12.3.1.4, the damming or diversion of water is a ***permitted*** activity, providing:

(a) The size of the catchment upstream of the dam, weir or diversion is no more than 50 hectares in area; and

(b) In the case of damming, the water immediately upstream of the dam is no more than 3 metres deep, and the volume of water stored by the dam is no more than 20,000 cubic metres; and

(c) In the case of diversion, the water is conveyed from one part of any lake or river, or its tributary, to another part of the same lake, river or tributary; and

(d) No lawful take of water is adversely affected as a result of the damming or diversion; and

(e) No wetland identified in Schedule 9 nor any wetland higher than 800 metres above sea level is adversely affected; and

(f) The damming or diversion does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and

(g) The damming or diversion is not within the Waitaki catchment.

12.3.2.2 The diversion of water, for the purpose of land drainage, is a ***permitted*** activity, providing:

(a) The water is not diverted from, nor is there any alteration of the water level of, any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(b) The diversion does not result in the lowering of the level of water in any lake or river; and

(c) The water is not taken from any wetland identified in Schedule 10; and

(d) The diversion does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.3.2.3 Except as provided for by Rules 12.3.1.4, 12.3.2.1 and 12.3.2.2, the diversion of water carried out for the purposes of allowing the erection, placement, repair or maintenance of a lawful structure, is a ***permitted*** activity, providing:

(a) The course of the water always remains within the bed of the lake or river; and

(b) The course of the water is returned to its normal course following the completion of the repair or maintenance, and no more than one month after the diversion occurs; and

(c) No lawful take of water is adversely affected as a result of the diversion; and

(d) No wetland identified in Schedule 9 nor any wetland higher than 800 metres above sea level is adversely affected; and

(e) The diversion does not cause any erosion, land instability, sedimentation or property damage.

12.3.3 Restricted discretionary activities: Resource consent required

12.3.3.1 (i) Except as provided for by Rules 12.3.1.1 to 12.3.2.3 and except in Welcome Creek, the damming of water, which has been previously carried out under a resource consent or other lawful authority, is a ***restricted discretionary*** activity.

(iA) The damming of water in the Waitaki catchment, except in Welcome Creek, to which this rule applies is a ***restricted discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, does not exceed the allocation to activities set out in Table 12.1.4.4A.

In considering any resource consent for the damming of water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following matters:

(a) Any adverse effects of continuing or discontinuing the damming of water on:

(i) Any natural or human use value identified in Schedule 1 for any affected water body including the impoundment itself;
(ii) The natural character of any affected water body including the impoundment itself;
(iii) Any amenity value supported by any affected water body including the impoundment itself;
(iv) Any heritage value associated with any affected water body including the impoundment itself;
(v) Any significant wetland value identified in Schedule 9 or any wetland higher than 800 metres above sea level; and
(vi) Any existing lawfully established take or damming of water; and

(b) Any maximum or minimum level or flow of water, and the range, or rate of change, of levels or flows of water; and
(c) Flooding, erosion, land instability, sedimentation or property damage resulting from the damming or from the discontinuation of the damming; and
(d) Any restoration of exposed lake bed resulting from any reduction in authorised lake level; and
(e) The purpose of the existing dam or lake level control; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any financial contribution; and
(i) Any bond; and
(j) Any insurance or other appropriate means of remedying the effects of failure; and
(k) Any adverse effect on any lawful priority attached to any resource consent or deemed permit; and
(l) Whether the damming of water under a water permit should be restricted to allow the damming or taking of water under any other permit; and
(m) The review of conditions of the resource consent; and
(n) For resource consents in the Waitaki catchment, matters in (a) to (m) above as well as matters in Policies 6.6A.1 to 6.6A.5.

12.3.4 Discretionary activities: Resource consent required

12.3.4.1 (i) Except as provided for by Rules 12.3.1.1 to 12.3.3.1 and except in the Waitaki catchment, the damming or diversion of water is a ***discretionary*** activity.

(iA) The damming or diversion of water in the Waitaki catchment, except in Welcome Creek to which this rule applies is a ***discretionary*** activity provided that by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource

consent, does not exceed the allocation to activities set out in Table 12.1.4.4A. In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.5.

12.3.5 Non-complying activities: Resource consent required

12.3.5.1 Except as provided for in Rule 12.3.5.2, the damming or diversion of water in the Waitaki catchment when, by itself or in combination with any other take, use, dam, or diversions, the sum of the annual volumes authorised by resource consent, exceeds the allocations to activities set out in Rules 12.3.3.1 and 12.3.4.1 is a *non-complying* activity. In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.5.

12.3.5.2 The damming or diversion of water from Welcome Creek is a *non-complying* activity. In considering an application to which this rule applies the consent authority will have regard, among other matters, to Policies 6.6A.1 to 6.6A.6.

Principal reasons for adopting

The damming or diversion of water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 14(3) of the Resource Management Act).

The Water Conservation (Kawarau) Order and the Lake Wanaka Preservation Act prohibit the damming of water. The Pomahaka River and Tributaries and Lower Clutha River Local Water Conservation Notice, deleted by this Plan, also prohibited the damming of water. It is therefore appropriate to prohibit the damming of the same waters within this Plan, as provided for by Rules 12.3.1.1 to 12.3.1.3. ~~Refer to Schedule 11 for the Water Conservation (Kawarau) Order 1997, and Schedule 14 for the Lake Wanaka Preservation Act 1973.~~

Rule 12.3.1.4 is adopted to prohibit the diversion of water from Lake Tuakitoto when the minimum level established by this Plan is in force. This rule continues the minimum lake level already established to protect the lake's recreational and wildlife features by The Local Water Conservation (Lake Tuakitoto) Notice, 1991.

The damming or diversion of water under Rules 12.3.2.1 to 12.3.2.3, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable small dams or diversions while providing protection for those values and the interests of those people. Any other activity involving the damming or diversion of water is either a restricted discretionary activity, a discretionary activity or a non-complying activity in order that any adverse effects can be assessed. Non-complying activity rules were

added to this Plan by the Waitaki Catchment Water Allocation Regional Plan.

Decision: E1e

12.4 Discharge of stormwater

12.4.1 Permitted activities: No resource consent required

12.4.1.1 The discharge of stormwater from a reticulated stormwater system to water, or onto or into land in circumstances where it may enter water, is a ***permitted*** activity, providing:

(a) Where the system is lawfully installed, or extended, after 28 February 1998:
  (i) The discharge is not to any wetland identified in Schedule 9; and
  (ii) Provision is made for the interception and removal of any contaminant which would give rise to the effects identified in Condition (d) of this rule; and
(b) The discharge does not contain any human sewage; and
(c) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
(d) The stormwater discharged, after reasonable mixing, does not give rise to all or any of the following effects in the receiving water:
  (i) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
  (ii) Any conspicuous change in the colour or visual clarity; or
  (iii) Any emission of objectionable odour; or
  (iv) The rendering of fresh water unsuitable for consumption by farm animals; or
  (v) Any significant adverse effects on aquatic life.

12.4.1.2 The discharge of stormwater from any road not connected to a reticulated stormwater system to water, or onto or into land, is a ***permitted*** activity, providing:

(a) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
(b) Where the road is subject to works, provision is made for the interception of any contaminant to avoid, after reasonable mixing, the following effects in the receiving water:
  (i) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
  (ii) Any conspicuous change in the colour or visual clarity; or
  (iii) Any emission of objectionable odour; or

(iv) The rendering of fresh water unsuitable for consumption by farm animals; or
(v) Any significant adverse effects on aquatic life.

12.4.2 Restricted discretionary activities: Resource consent required

12.4.2.1 Except as provided for by Rules 12.4.1.1 to 12.4.1.2, the discharge of stormwater to water, or onto or into land in circumstances where it may enter water, is a ***restricted discretionary*** activity.

In considering any resource consent for the discharge of stormwater in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the discharge on:
    (i) Any natural and human use value identified in Schedule 1 for any affected water body;
    (ii) The natural character of any affected water body;
    (iii) Any amenity value supported by any affected water body; and
    (iv) Any heritage value associated with any affected water body; and
(b) Any adverse effect on a significant wetland value identified in Schedule 9; and
(c) Any financial contribution for Type B wetland values that are adversely affected; and
(d) The volume, rate and method of the discharge; and
(e) The nature of the discharge; and
(f) Treatment options; and
(g) The location of the discharge point or area, and alternative receiving environments; and
(h) The likelihood of erosion, land instability, sedimentation or property damage resulting from the discharge of stormwater; and
(i) The potential for soil contamination; and
(j) The duration of the resource consent; and
(k) The information and monitoring requirements; and
(l) Any bond; and
(m) Any existing lawful activity associated with any affected water body; and
(n) The review of conditions of the resource consent.

Principal reasons for adopting

The discharge of stormwater to water can only occur if it is expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a regulation, or by a resource consent (Section 15(1) of the Resource Management Act 1991). The discharge of stormwater to land (where it does not enter water) cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of stormwater under Rules 12.4.1.1 and 12.4.1.2 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable stormwater to be discharged while providing protection for those values and the interests of those people. Any other activity involving the discharge of stormwater is a restricted discretionary activity in order that any adverse effects can be assessed.

12.5 Discharge of drainage water

12.5.1 Permitted activities: No resource consent required

12.5.1.1 The discharge of drainage water to water, or onto or into land in circumstances where it may enter water, from any drain, is a ***permitted*** activity, providing:

(a) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and

(b) The discharge, after reasonable mixing, does not give rise to all or any of the following effects in the receiving water:

(i) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or

(ii) Any conspicuous change in the colour or visual clarity; or

(iii) Any emission of objectionable odour; or

(iv) The rendering of fresh water unsuitable for consumption by farm animals; or

(v) Any significant adverse effects on aquatic life.

12.5.2 Restricted discretionary activities: Resource consent required

12.5.2.1 Except as provided for by Rule 12.5.1.1, the discharge of drainage water to water, or onto or into land in circumstances where it may enter water, is a ***restricted discretionary*** activity.

In considering any resource consent for the discharge of drainage water in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the discharge on:

(i) Any natural and human use value identified in Schedule 1 for any affected water body;

(ii) The natural character of any affected water body;

(iii) Any amenity value supported by any affected water body; and

(iv) Any heritage value associated with any affected water body; and

(b) Any adverse effect on a significant wetland value identified in Schedule 9; and

(c) Any financial contribution for Type B wetland values that are adversely affected; and

(d) The volume, rate and method of the discharge; and

(e) The nature of the discharge; and
(f) Treatment options; and
(g) The location of the discharge point or area, and alternative receiving environments; and
(h) The likelihood of flooding, erosion, land instability, sedimentation or property damage resulting from the discharge; and
(i) The duration of the resource consent; and
(j) The information and monitoring requirements; and
(k) Any existing lawful activity associated with any affected water body; and
(l) Any bond; and
(m) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting
The discharge of drainage water to water can only occur if it is expressly allowed by a rule in a regional plan, or in any relevant proposed regional plan, or by a regulation, or by a resource consent (Section 15(1) of the Resource Management Act 1991).

The discharge of drainage water under Rule 12.5.1.1 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. This rule is adopted to enable drainage water to be discharged while providing protection for those values and the interests of those people. Any other activity involving the discharge of drainage water is a restricted discretionary activity in order that any adverse effects can be assessed.

12.6 Discharge of human sewage

Note: 1. Where sullage is separated from human sewage, its discharge is covered by Rules under 12.11 and 12.13.
2. The approval of particular technologies for the on-site treatment of human sewage under particular land conditions will usually require the involvement of the relevant city or district council, under the Building Act 2004 or the Health Act 1956. This Plan deals only with the effect of the discharge on the environment, and does not promote any particular technology or treatment method.

12.6.1 Permitted activities: No resource consent required

12.6.1.1 The discharge of human sewage into land from an existing long-drop toilet is a *permitted* activity, providing:
(a) The discharge was lawfully carried out without resource consent prior to 28 February 1998; and

(b) There is no direct discharge of human sewage, or effluent derived from it, to water in any water body, drain, water race, or the coastal marine area.

12.6.1.2 The discharge of human sewage into land from any long-drop toilet constructed after 28 February 1998 is a *permitted* activity, providing:

(a) The toilet is sited more than 50 metres from any surface water body or mean high water springs; and

(b) The toilet is sited more than 50 metres from any bore which:

(i) Existed before the commencement of the discharge associated with the long-drop toilet; and

(ii) Is used to supply water for domestic needs or drinking water for livestock; and

(c) The discharge does not occur within any Groundwater Protection Zone, as identified on Maps C1-C17, nor in the area of the Lake Hayes catchment as identified on Map B1; and;

(b) There is no direct discharge of human sewage, or effluent derived from it, to water in any drain or water race, or to groundwater; and

(c) The toilet is constructed so that no runoff enters the hole.

12.6.1.3 The discharge of human sewage through any existing on-site waste water treatment system onto or into land is a *permitted* activity, providing:

(a) The discharge was lawfully carried out without resource consent prior to 28 February 1998; and

(b) There is no direct discharge of human sewage, or effluent derived from it, to water in any water body, drain, water race, or the coastal marine area; and

(c) Effluent from the system does not run off to any other person's property; and

(d) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.6.1.4 The discharge of human sewage through any on-site waste water treatment system, installed after 28 February 1998, onto or into land is a *permitted* activity, providing:

(a) The discharge does not exceed 2000 litres per day (calculated as a weekly average); and

(b) The discharge does not occur within the A zone of any Groundwater Protection Zone, as identified on Maps C1-C17, nor in the area of the Lake Hayes catchment, as identified on Map B1; and

(c) The system's disposal field is sited more than 50 metres from any surface water body or mean high water springs; and

(d) The system's disposal field is sited more than 50 metres from any bore which:
  (i) Existed before the commencement of the discharge activity; and
  (ii) Is used to supply water for domestic needs or drinking water for livestock; and
(e) There is no direct discharge of human sewage, or effluent derived from it, to water in any drain or water race, or to groundwater; and
(f) Effluent from the system does not run off to any other person's property; and
(g) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.6.2 Discretionary activities: Resource consent required

12.6.2.1 Except as provided for by Rules 12.6.1.1 to 12.6.1.4, the discharge of human sewage to water, or onto or into land in circumstances where it may enter water, is a ***discretionary*** activity.

Principal reasons for adopting

The discharge of human sewage to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act). The discharge of human sewage to land (under conditions that ensure it does not enter water) cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of human sewage to land under Rules 12.6.1.1 to 12.6.1.4, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, because contaminants are unlikely to reach water bodies. These rules are adopted to enable human sewage to be discharged while providing protection for those values and the interests of those people. Any other activity involving the discharge of human sewage, is a discretionary activity in order that any adverse effects can be assessed.

12.7 Discharge of pesticides

12.7.1 Permitted activities: No resource consent required

12.7.1.1 The discharge of any herbicide to water for the control of aquatic plants is a ***permitted*** activity, providing:
(a) The herbicide and any associated additive are authorised for aquatic use in New Zealand, and are used in accordance with the authorisation; and
(b) The discharge is carried out in accordance with any manufacturers' directions and is carried out by a person who

holds a Growsafe Registered Applicator Certificate of Qualification; and

(c) The herbicide is applied in the form of a gel; and

(d) The discharge is for the purpose of controlling aquatic plants and does not exceed the quantity, concentration or rate required for that purpose; and

(e) No lawful take of water is adversely affected as a result of the discharge; and

(f) The discharger notifies, at least one week before commencing the discharge:

(i) Every person taking water for domestic supply, and every holder of a resource consent or deemed permit for the taking of water within one kilometre downstream of the proposed discharge in any river or water race, or within one kilometre of the proposed discharge in any lake; and

(ii) The community through Public Notice, where the discharge will occur directly into a lake or river.

12.7.1.2 Except as provided for by Rule 12.8.1.1, the land-based discharge of any pesticide onto land is a *permitted* activity, providing:

(a) The pesticide is authorised for use in New Zealand and is used in accordance with the authorisation; and

(b) The discharge is carried out in accordance with any manufacturers' directions; and

(c) The discharge is for the purpose of controlling animals, plants or other organisms and does not exceed the quantity, concentration or rate required for that purpose; and

(d) There is no direct discharge of the pesticide to water in any water body, drain, water race or the coastal marine area.

12.7.1.3 The discharge of herbicide to air or land in circumstances where it will enter water, is a ***permitted*** activity, providing:

(a) The herbicide and any associated additive are authorised for use in or over water in New Zealand and are used in accordance with the authorisation; and

(b) The use is carried out in accordance with any manufacturers' directions; and

(c) The discharge is for the purpose of controlling plants and does not exceed the quantity, concentration or rate required for that purpose; and

(d) All reasonable measures are taken to minimise any direct discharge of the herbicide to water in any water body, drain, water race, or to the coastal marine area; and

(e) No lawful take of water is adversely affected as a result of the discharge; and

(f) The discharger notifies, at least one week before commencing the discharge:

(i) Every person taking water for domestic supply, and every holder of a resource consent or deemed permit for

the taking of water within one kilometre downstream of the proposed discharge alongside any river or water race, or within one kilometre of the proposed discharge alongside any lake; and

(ii) The community through Public Notice, where the discharge will occur directly into any lake or river.

12.7.1.4 Except as provided for by Rule 12.7.1.3, the aerial discharge of any pesticide onto land in circumstances where it, or any contaminant associated with its breakdown, may enter water, is a ***permitted*** activity, providing:

(a) The pesticide is authorised for use in New Zealand and is used in accordance with the authorisation; and

(b) The discharge is carried out in accordance with any manufacturers' directions, by a person who holds a Growsafe Pilots' Agrichemical Rating Certificate of Qualification; and

(c) The discharge is for the purpose of controlling animals, plants or other organisms and does not exceed the quantity, concentration or rate required for that purpose; and

(d) All reasonable measures are taken to prevent any discharge of the pesticide within 20 metres of water in any water body, drain or water race, or of the coastal marine area.

12.7.2 Discretionary activities: Resource consent required

12.7.2.1 Except as provided for by Rules 12.7.1.1 to 12.7.1.4, the discharge of any pesticide to water, land, or to air or land in circumstances where it may, or will, enter water, is a ***discretionary*** activity.

Principal reasons for adopting

The discharge of any pesticide to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act). The discharge of pesticide to land (under conditions that ensure it does not enter water) cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of the above pesticides to water or land under Rules 12.7.1.1 to 12.7.1.4, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable the use of pesticides while providing protection for those values and the interests of those people. Any other activity involving the discharge of the above materials, is a discretionary activity in order that any adverse effects can be assessed.

12.8 Discharge of agricultural waste and fertiliser

12.8.1 Permitted activities: No resource consent required

12.8.1.1 The discharge of any animal dip material onto production land is a ***permitted*** activity, providing:

(a) The dip material is lawfully authorised for use in New Zealand and is used in accordance with the authorisation; and

(b) The discharge occurs more than 50 metres from any surface water body or mean high water springs; and

(c) The discharge occurs more than 100 metres from any bore used to supply water for domestic needs or drinking water for livestock; and

(d) The discharge does not exceed 5000 litres per hectare; and

(e) The discharge is carried out on land with a continuous cover of vegetation which has a minimum of 25 mm thickness; and

(f) The discharge is not carried out on land which has already been used for the disposal of animal dip material in the previous eight months; and

(g) The discharge is carried out in accordance with any manufacturers' directions; and

(h) Contaminants from the discharge do not run off to any other person's property; and

(i) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and

(j) There is no direct discharge of animal dip material to water in any drain or water race, or to groundwater.

12.8.1.2 The discharge of contaminants that have been collected in any animal waste collection system, onto production land in Zone A of the Lower Waitaki Plains Groundwater Protection Zone (as identified on Map C9), is a ***permitted*** activity, providing:

(a) Any collection or storage system is sealed so as to prevent any contamination of water in any water body, drain or water race; and

(b) No hazardous substance is added to the material to be discharged; and

(c) The discharge occurs more than 50 metres from any surface water body, mean high water springs or any direct conduit to groundwater; and

(d) The discharge occurs more than 50 metres from any bore used to supply water for domestic needs or drinking water for livestock; and

(e) The discharge does not occur on saturated soils; and

(f) The application of animal waste does not exceed 25 mm depth at one time, and a minimum of 15 days expires before any re-application to the same land; and

(g) There is no direct discharge of animal waste to water in any drain or water race; and
(h) Effluent from the discharge does not run off onto any other person's property; and
(i) Ponding of animal waste from the discharge does not occur; and
(j) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
(k) The Nitrogen loading due to the discharge does not exceed 75 kg N per hectare per year.*

* Note in terms of Condition (k): 6.5 kg N is produced annually in the shed by a cow milked 270 days/year, requiring 866 m^2 of land area for application under ideal conditions. A 100 cow herd would require no less than 8.66 ha for land application of their waste, to be within this annual loading limit but, depending on soil moisture status, a greater area may be required in order to meet the other conditions of the rule.

12.8.1.3 The discharge of contaminants that have been collected in any animal waste collection system, onto production land not in Zone A of a Groundwater Protection Zone (as identified on Maps C1-C17), is a ***permitted*** activity, providing:
(a) Any collection or storage system is sealed so as to prevent any contamination of water in any water body, drain, or water race; and
(b) No hazardous substance is added to the material to be discharged; and
(c) The discharge occurs more than 50 metres from any surface water body or mean high water springs; and
(d) The discharge occurs more than 50 metres from any bore used to supply water for domestic needs or drinking water for livestock; and
(e) The discharge does not occur on saturated soils; and
(f) There is no direct discharge of animal waste to water in any drain, or water race, or to groundwater; and
(g) Effluent from the discharge does not run off onto any other person's property; and
(h) Ponding of animal waste from the discharge does not occur; and
(i) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and
(j) The Nitrogen loading due to the discharge does not exceed 150 kg N per hectare per year*; and
(k) The discharge does not exceed the application requirements identified in Schedule 8.

* Note in terms of Condition (j): 6.5 kg N is produced annually in the shed by a cow milked 270 days/year, requiring 433 m^2 of land area for application under ideal conditions. A 100 cow herd would require no less than 4.33 ha for land application of their waste, to be within this annual loading limit but, depending on soil moisture status, a greater area may be required in order to meet the other conditions of the rule.

12.8.1.4 Except as provided for by Rule 12.8.1.2 or 12.8.1.3, the discharge of contaminants from any feed pad, stand-off pad or sacrifice paddock, into or onto land is a ***permitted*** activity providing:

(a) Any feed pad or stand-off pad established after 28 February 1998 is not within 50 metres of any surface water body; and

(b) The discharge occurs more than 50 metres from any surface water body or mean high water springs; and

(c) The discharge occurs more than 50 metres from any bore used to supply water for domestic needs or drinking water for livestock; and

(d) There is no direct discharge of contaminant to water in any drain, or water race, or to groundwater; and

(e) Effluent from the discharge does not run off to any other person's property; and

(f) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.8.1.5 The discharge of fertiliser onto production land, in circumstances where it may enter water, is a ***permitted*** activity, providing:

(a) All reasonable measures are taken to minimise any discharge of the fertiliser to water in any water body, drain or water race, to any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level, or to the coastal marine area; and

(b) The discharge is carried out in accordance with the manufacturer's directions.

12.8.2 Restricted discretionary activities: Resource consent required

12.8.2.1 The discharge of contaminants from any animal waste collection system onto production land in Zone A of the Kakanui-Kauru, Shag, Roxburgh, Ettrick or Lower Taieri Groundwater Protection Zones (as identified in Maps C10-C12 and C15), is a ***restricted discretionary*** activity.

In considering any resource consent for the discharge of animal waste in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the discharge on:

(i) Any natural and human use value identified in Schedule 1 for any affected water body;

(ii) The natural character of any affected water body;

(iii) Any amenity value supported by any affected water body; and
(iv) Any heritage value associated with any affected water body; and

(b) Any adverse effect on the aquifer; and
(c) Any adverse effect on an existing lawful take of water; and
(d) The volume, rate and method of discharge; and
(e) The nature of the discharge; and
(f) The location and nature of the area affected by the discharge, and alternative receiving environments; and
(g) The capacity and security of any storage; and
(h) The potential for soil contamination; and
(i) The duration of the resource consent; and
(j) The information and monitoring requirements; and
(k) Any existing lawful activity associated with any affected water body; and
(l) Any bond; and
(m) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

12.8.3 Discretionary activities: Resource consent required

12.8.3.1 Except as provided for by Rules 12.8.1.1 to 12.8.2.1, the discharge of any agricultural waste or fertiliser to water, or onto or into land in circumstances where it may enter water, is a ***discretionary*** activity.

Principal reasons for adopting

The discharge of any agricultural waste or fertiliser to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act). The discharge of agricultural waste to land (under conditions that ensure it does not enter water) cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of the above materials to water or land under Rules 12.8.1.1 to 12.8.1.4, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable the disposal of agricultural waste, or the use of fertiliser, while providing protection for those values and the interests of those people. Any other activity involving the discharge of the above materials, is either a restricted discretionary or a discretionary activity in order that any adverse effects can be assessed.

12.9 Discharges from drilling and bore testing

12.9.1 Permitted activities: No resource consent required

12.9.1.1 The discharge of water associated with down-hole pump testing to water, or to land in circumstances where it may enter water, is a ***permitted*** activity, providing:

(a) The discharge is not to any wetland identified in Schedule 9; and

(b) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and

(c) The discharge, after reasonable mixing, does not give rise to all or any of the following effects in the receiving water:

(i) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or

(ii) Any conspicuous change in the colour or visual clarity; or

(iii) Any emission of objectionable odour; or

(iv) The rendering of fresh water unsuitable for consumption by farm animals; or

(v) Any significant adverse effects on aquatic life.

12.9.1.2 The discharge of contaminants to land associated with drilling is a *permitted* activity, providing:

(a) The discharge is not to any wetland identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(b) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage; and

(c) There is no direct discharge of contaminant to water in any water body, drain or water race, or to the coastal marine area.

12.9.2 Restricted discretionary activities: Resource consent required

12.9.2.1 Except as provided for by Rules 12.9.1.1 and 12.9.1.2, the discharge of water associated with down-hole pump testing or contaminants associated with drilling, to water or onto or into land, in circumstances where it may enter water, is a ***restricted discretionary*** activity.

In considering any resource consent for the discharge of water associated with bore testing or contaminants associated with drilling in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the discharge on:

(i) Any natural and human use value identified in Schedule 1 for any affected water body;

(ii) The natural character of any affected water body;

(iii) Any amenity value supported by any affected water

body; and

(iv) Any heritage value associated with any affected water body; and

(b) Any adverse effect on a significant wetland value identified in Schedule 9 or any wetland higher than 800 metres above sea level; and

(c) Any financial contribution for Type B wetland values that are adversely affected; and

(d) Any adverse effect on the aquifer; and

(e) Any adverse effect on an existing lawful take of water; and

(f) The volume, rate and method of the discharge; and

(g) The nature of the discharge; and

(h) Treatment options; and

(i) The location of the discharge point or area, and alternative receiving environments; and

(j) The potential for soil contamination; and

(k) The duration of the resource consent; and

(l) The information and monitoring requirements; and

(m) Any existing lawful activity associated with any affected water body; and

(n) Any bond; and

(o) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

The discharge of any water associated with down-hole pump testing or contaminants associated with drilling, to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act). The discharge of such material to land (under conditions that ensure it does not enter water) cannot be carried out in a manner that contravenes a rule in a regional plan or proposed regional plan (Section 15(2) of the Resource Management Act).

The discharge of the above materials to water or land under Rules 12.9.1.1 and 12.9.1.2, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable the down-hole pump testing and drilling to occur, while providing protection for those values and the interests of those people. Any other activity involving the discharge of the above materials, is a restricted discretionary activity in order that any adverse effects can be assessed.

12.10 Discharges from vessels

12.10.1 Permitted activities: No resource consent required

12.10.1.1 The discharge of any contaminant or water from a vessel into water is a ***permitted*** activity, providing:

(a) The discharge is not to any wetland identified in Schedule 9; and

(b) No non-biodegradable material is included in the discharge; and

(c) The discharge contains no hazardous substance, human sewage, petroleum product, pest plant material (as identified in the Pest Management Strategy for Otago 2001) or waste from an industrial or trade process; and

(d) The discharge, after reasonable mixing, does not give rise to all or any of the following effects in the receiving water:

(i) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or

(ii) Any conspicuous change in the colour or visual clarity; or

(iii) Any emission of objectionable odour; or

(iv) The rendering of fresh water unsuitable for consumption by farm animals; or

(v) Any significant adverse effects on aquatic life.

12.10.2 Restricted discretionary activities: Resource consent required

12.10.2.1 Except as provided for by Rule 12.10.1.1, the discharge of any contaminant or water from a vessel, or from the maintenance of a vessel, to water, or onto or into land in circumstances where it may enter water, is a ***restricted discretionary*** activity.

In considering any resource consent for the discharge of contaminants or water from a vessel, or from the maintenance of a vessel in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the discharge on:

(i) Any natural and human use value identified in Schedule 1 for any affected water body;

(ii) The natural character of any affected water body;

(iii) Any amenity value supported by any affected water body; and

(iv) Any heritage value associated with any affected water body; and

(b) Any adverse effect on a significant wetland value identified in Schedule 9; and

(c) Any financial contribution for Type B wetland values that are adversely affected; and

(d) The volume, rate and method of the discharge; and

(e) The nature of the discharge; and

(f) The location of the discharge point or area, and alternative receiving environments; and
(g) Treatment options; and
(h) The duration of the resource consent; and
(i) The information and monitoring requirements; and
(j) Any existing lawful activity associated with any affected water body; and
(k) Any bond; and
(l) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting
The discharge of any water or contaminant to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act).

The discharge of the above materials to water or land under Rule 12.10.1.1 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. This rule is adopted to enable discharges from vessels, while providing protection for those values and the interests of those people. Any other activity involving the discharge of the above materials, is a restricted discretionary activity in order that any adverse effects can be assessed.

12.11 Discharge of water or tracer dye

12.11.1 Prohibited activities: No resource consent will be granted

12.11.1.1 The discharge of water from nuclear power generation or nuclear weapon manufacturing is a ***prohibited*** activity for which no resource consent will be granted.

12.11.2 Permitted activities: No resource consent required

12.11.2.1 The discharge of sullage, cooling water or water from any drinking-water supply reservoir, water supply pipeline or swimming pool to water, or onto or into land in circumstances where it may enter water, is a ***permitted*** activity, providing:
(a) The discharge does not contain:
(i) A greater concentration of faecal coliforms than that of the receiving water, or a concentration that could cause the faecal coliform concentration of the receiving water, after reasonable mixing, to exceed 150 CFU per 100 mls; or
(ii) Any disinfectant, antiseptic or pesticide; or
(iii) Any residual flocculant, except for aluminium at acid-

soluble aluminium concentrations less than 0.1 grams per cubic metre; or

(iv) Any free or residual chlorine at the point where the discharge enters water in any surface water body or mean high water springs; or

(v) Human sewage; or

(vi) Any hazardous substance; and

(b) The discharge does not increase the natural temperature of the receiving water, after reasonable mixing, by more than 3° Celsius, and does not cause the temperature of the receiving water, after reasonable mixing, to rise above 25° Celsius; and

(c) The discharge does not increase the suspended solids levels in the receiving water, after reasonable mixing, by more than 10 grams per cubic metre; and

(d) The discharge does not change the pH of the receiving water, after reasonable mixing, by more than 0.5 pH units; and

(e) The discharge does not, after reasonable mixing, give rise to any significant adverse effect on aquatic life; and

(f) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.11.2.2 The discharge of water which has been used for the purpose of holding live organisms to water, or onto or into land in circumstances where it may enter water, is a ***permitted*** activity, providing:

(a) The discharge is not to any wetland identified in Schedule 9; and

(b) No contaminant has been added that is toxic to the aquatic life of the receiving water body; and

(c) The discharge contains no pest plant material (as identified in the Pest Management Strategy for Otago 2001); and

(d) The discharge does not increase the natural temperature of the receiving waters, after reasonable mixing, by more than 3° Celsius, and does not cause the temperature of the receiving water, after reasonable mixing, to rise above 25° Celsius; and

(e) The discharge does not increase the suspended solids levels in the receiving water, after reasonable mixing, by more than 10 grams per cubic metre; and

(f) The discharge does not, after reasonable mixing, give rise to any significant adverse effect on aquatic life; and

(g) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.11.2.3 Except as provided for by Rules 12.4.1, 12.5.1, 12.9.1.1, 12.10.1.1, 12.11.1.1, 12.11.2.1 and 12.11.2.2, the discharge of any

other water to water, or onto or into land in circumstances where it may enter water, is a *permitted* activity, providing:

(a) In the case of a discharge from a dam, the conditions of Rule 12.3.2.1 are met; and
(b) Except in the case of surplus irrigation water from a system that was operational on or before 28 February 1998, the water is discharged to a water body with the same coastal mouth as that from which the water has been sourced; and
(c) The discharge does not contain any hazardous substance; and
(d) The discharge does not increase the natural temperature of the receiving water, after reasonable mixing, by more than 3o Celsius, and does not cause the temperature of the receiving water, after reasonable mixing, to rise above 25o Celsius; and
(e) The discharge does not increase the suspended solids levels in the receiving water, after reasonable mixing, by more than 10 grams per cubic metre; and
(f) The discharge does not, after reasonable mixing, give rise to any significant adverse effect on aquatic life; and
(g) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.

12.11.3 Controlled activities: Resource consent required but always granted

12.11.3.1 The discharge of tracer dye to water is a ***controlled*** activity, providing it is chemically inert, non-radioactive, and non-toxic.

In granting any resource consent for the discharge of tracer dye in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

(a) Any adverse effects of the discharge on:
    (i) Any natural and human use value identified in Schedule 1 for any affected water body;
    (ii) The natural character of any affected water body; and
    (iii) Any amenity value supported by any affected water body; and
(b) Any adverse effect on an existing lawful take of water; and
(c) The location and timing of the discharge; and
(d) The nature of the dye; and
(e) The duration of the resource consent; and
(f) The information and monitoring requirements; and
(g) Any bond; and
(h) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting
The discharge of the above water or tracer dye to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act).

Rule 12.11.1.1 is adopted to provide for and be fully consistent with Policy 12.5.1 of the Regional Policy Statement for Otago. The rule prohibits all discharges of water used in nuclear power generation plants and in nuclear weapons manufacturing.

The Otago Regional Council considers the effects of discharging water as identified in Rule 12.11.2.1 to 12.11.2.3, will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person. These rules are adopted to enable discharges of water, while providing protection for those values and the interests of those people.

Rule 12.11.3.1 is adopted to ensure that the Otago Regional Council has the opportunity to manage the colour change likely to arise from the discharge of tracer dye to water.

12.12 Discharges from dams and reservoirs

12.12.1 Permitted activities: No resource consent required

12.12.1.1 The discharge of any contaminant, excluding settled sediment, present in water impounded by a dam, to water in a lake or river, is a ***permitted*** activity, providing:

(a) The dam is not used for the storage of contaminants; and
(b) The presence of the contaminant does not result from the damming activity or the activities of the dam operator; and
(c) The discharge, after reasonable mixing does not give rise to all or any of the following effects:
    (i) The production of any conspicuous oil or grease films, scum or foams, or floatable or suspended materials; or
    (ii) Any conspicuous change in colour or visual clarity; or
    (iii) Any emission of objectionable odour; or
    (iv) The rendering of fresh water unsuitable for consumption by farm animals; or
    (v) Any significant adverse effect on aquatic life; and
(d) The discharge ceases when an enforcement officer of the Otago Regional Council requires the discharge to cease to provide for clean-up operations and prevent adverse effects on the environment.

12.12.1.2 Except as provided for by Rule 12.12.1.1, the discharge of a trace amount of any contaminant, originating from within a hydro-electric power structure, into water, is a ***permitted*** activity.

Principal reasons for adopting
Rule 12.12.1.1 recognises that a dam operator is not always able to control what enters and leaves a dam. Environmental safeguards are contained in Condition (d) and the discharge must cease if requested by an enforcement officer for containment and clean-up operations.

Rule 12.12.1.2 recognises that minute amounts of contaminants may be discharged from hydro-electric facilities during normal operations without any measurable adverse effect on the environment.

12.13 Other discharges

12.13.1 Discretionary activities: Resource consent required

12.13.1.1 Except as provided for by Rules 12.4.1.1 to 12.12.1.2, the discharge of water or contaminants to water, or onto or into land in circumstances which may result in that contaminant entering water, is a ***discretionary*** activity.

Principal reasons for adopting
The discharge of any water or contaminants to water can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, by a resource consent, or by regulation (Section 15(1) of the Resource Management Act).

Under Rule 12.13.1.1, any other discharge not specified in the rules of this Plan is a discretionary activity in order that any adverse effects can be assessed.

13

Rules: Land Use on Lake or River Beds

Note: Where the rules in this chapter provide for any activity in the bed of a lake or river, a resource consent may also be required for activities associated with it, such as discharges to water, takes of water, damming or diversion of water, bed disturbance or structures.

13.1 The use of a structure

13.1.1 Permitted activities: No resource consent required

13.1.1.1 The use of any structure that is fixed in, on, under, or over the bed of any lake or river is a ***permitted*** activity, providing:

(a) The structure is lawfully established; and

(b) In the case of a change in use, the effects of the new use of the structure are the same or similar in character, intensity and scale as the preceding use; and

(c) The structure is maintained in good repair.

13.1.2 Restricted discretionary activities: Resource consent required

13.1.2.1 Except as provided for by Rule 13.1.1.1, the use of a structure that is fixed in, on, under, or over the bed of any lake or river is a ***restricted discretionary*** activity.

In considering any resource consent for the use of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effect on the function or structural integrity of the structure; and

(b) The duration of the resource consent; and

(c) The information and monitoring requirements; and

(d) Any insurance or other appropriate means of remedying the effects of failure; and

(e) Any bond; and

(f) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

The use of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The use of any structure under Rule 13.1.1.1 is likely to have less adverse effect than the structure itself. This rule is adopted to enable the use of structures while ensuring that any change in use does not result in new or increased effects. Any other activity involving the use of a structure that is fixed in, on, under, or over the bed of any lake

or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.2 The erection or placement of a structure

13.2.1 Permitted activities: No resource consent required

Note:	Any alteration of the bed of a lake or river in association with the following activities must also comply with Rules under 13.5 in order to be classified as a permitted activity.

13.2.1.1 The erection or placement of any fence, pipe, line or cable over the bed of a lake or river, is a ***permitted*** activity, providing:

(a) The fence, pipe, line or cable does not cross a lake or river identified in Schedule 1A as being an "Outstanding natural feature or landscape" unless it is attached to an existing lawfully established support structure; and

(b) No part of the fence, pipe, line or cable is fixed to the bed of the lake or river unless it is attached to an existing lawfully established support structure; and

(c) No part of any pipe, line or cable is less than two metres above the 1 percent probability flood level, unless it is attached to an existing lawful structure; and

(d) Where it is attached to an existing lawful structure, no part of any pipe, line or cable extends below the underside of the existing structure; and

(e) Any fence over the bed of a lake or river does not impede the flow of flood water or debris, or is installed and maintained so it results in no flooding or erosion of the bed or banks of the lake or river; and

(f) The fence, pipe, line or cable does not interfere with navigation; and

(g) For existing overhead network utility services over the bed of a lake or river, there is no reduction in the height of clearance above the waterway; and

(h) The fence, pipe, line or cable is maintained in good repair.

13.2.1.2 The placement of any pipe, line, or cable on or under the bed of a lake or river, is a ***permitted*** activity, providing:

(a) The pipe, line, or cable does not impede the flow of water or debris, or is installed and maintained so it results in no flooding, erosion or sedimentation; and

(b) The location of the pipe, line, or cable is identified by markers on the banks of the river or lake; and

(c) The pipe, line, or cable is maintained in good repair.

13.2.1.3 The erection or placement of any structure for the damming of water that is fixed in or on the bed of any lake or river is a ***permitted*** activity, providing:

(a) The conditions of Rule 12.3.2.1 are met; and

(b) The Otago Regional Council is notified of the location and nature of the dam, at least seven working days prior to commencing the erection or placement; and
(c) The structure is maintained in good repair; and
(d) The site is left tidy following the erection or placement.

Note: The erection of a dam structure is a different activity to the damming of water. The damming of water is covered by rules under 12.3 of this Plan.

13.2.1.4 The erection or placement of any flow or level recording device, outfall or intake structure or navigational aid structure, that is fixed in, on or under the bed of any lake or river is a ***permitted*** activity, providing:

(a) The structure does not exceed 2 square metres in area provided that in respect of any flow or level recording device any catwalk to the nearest bank shall be excluded from the area calculation; and
(b) The structure, or its erection or placement, does not cause any flooding or erosion; and
(c) The Otago Regional Council is notified of the location and nature of the structure, at least seven working days prior to commencing the erection or placement; and
(d) Except in the case of a navigational aid, or the sight board of any gauge, any visible part of the structure is of a neutral colour to blend in with the surroundings; and
(e) The structure is maintained in good repair; and
(f) The site is left tidy following the erection or placement.

13.2.1.5 The erection or placement of any maimai that is fixed in, on or under the bed of any lake or river is a ***permitted*** activity, providing:

(a) The structure does not exceed 10 square metres in area; and
(b) The structure is open piled; and
(c) The structure is at least 90 metres from any adjacent maimai; and
(d) The site is left tidy following the erection or placement.

13.2.1.6 The erection or placement of any whitebait stand or eel trap that is fixed in, on or under the bed of any lake or river is a ***permitted*** activity, providing:

(a) The structure is open piled; and
(b) The structure does not exceed three square metres in area; and
(c) The dimension of the structure perpendicular to the flow of water is no more than 10 percent of the width of the bed of the lake or river, or no more than three metres, whichever is the lesser; and

(d) The structure is at least 20 metres from any neighbouring structure, flood gate, confluence or culvert located within the bed of a lake or river; and
(e) In the case of a whitebait stand, the structure is erected or placed in or on the bed of the Clutha River/Mata-Au, or its branches; and
(f) The site is left tidy following the erection or placement.

13.2.1.7 The erection or placement of any bridge or culvert in, on or over the bed of a lake or river is a ***permitted*** activity, providing:
(a) The size of the catchment upstream of the bridge or culvert is no more than 50 hectares in area; and
(b) The bridge or culvert, or its erection or placement, does not cause any flooding, nor cause any erosion of the bed or banks of the lake or river; and
(c) The site is left tidy following the erection or placement.

13.2.1.8 The placement of a floating boom in, on or over the bed of a lake is a ***permitted*** activity, providing:
(a) The boom is securely fixed to the bed or margins of the lake; and
(b) The boom is not more than 850 metres upstream of a lawfully established hydro-electric dam or control structure or within 200 metres of any other lawfully established dam or control structure; and
(c) The boom is maintained at all times in a safe condition, good repair and substantially free of debris; and
(d) The boom and all associated equipment are clearly visible.

13.2.2 Restricted discretionary activities: Resource consent required

13.2.2.1 Except as provided for by Rules 13.2.1.1, 13.2.1.2 and 13.2.1.5 to 13.2.1.7, the erection or placement of any fence, pipe, line, cable, whitebait stand, eel trap, maimai, jetty, bridge or culvert in, on, under, or over the bed of any lake or river, is a ***restricted discretionary*** activity.

In considering any resource consent for the erection or placement of any fence, pipe, line, cable, whitebait stand, eel trap, maimai, jetty, bridge or culvert in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:
(a) Any adverse effects of the activity on:
  (i) Any natural and human use value identified in Schedule 1 for any affected water body;
  (ii) The natural character of any affected water body;
  (iii) Any amenity value supported by any affected water body; and
  (iv) Any heritage value associated with any affected water body; and
(b) Flow and sediment processes; and
(c) Any adverse effect on a defence against water; and

(d) Any adverse effect on existing public access; and
(e) Fish passage; and
(f) The method of construction; and
(g) The duration of the resource consent; and
(h) The information and monitoring requirements; and
(i) Any existing lawful activity associated with any affected water body; and
(j) Any bond; and
(k) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

13.2.3 Discretionary activities: Resource consent required

13.2.3.1 Except as provided for by Rules 13.2.1.1 to 13.2.2.1, the erection or placement of any structure fixed in, on, under, or over the bed of any lake or river, is a ***discretionary*** activity.

Principal reasons for adopting

The erection or placement of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The erection or placement of structures under Rules 13.2.1.1 to 13.2.1.7 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since the structures are suspended clear of the lake or river, or are small or open piled. These rules are adopted to enable such structures to be erected or placed while providing protection for those values and the interests of those people. Any other activity involving the erection or placement of any structure, that is fixed in, on, under, or over the bed of any lake or river is either a restricted discretionary or a discretionary activity in order that any adverse effects can be assessed.

13.3 The extension, alteration, replacement or reconstruction of a structure

13.3.1 Permitted activities: No resource consent required

Note: Any alteration of the bed of a lake or river in association with the following activities must also comply with Rules under 13.5 in order to be classified as a permitted activity.

13.3.1.1 The repair or maintenance of any lawful structure in, on, under or over the bed of a lake or river is a ***permitted*** activity providing:
(a) There is no permanent change to the scale, nature or functions of the structure.

13.3.1.2 The extension, alteration, replacement or reconstruction of any lawful structure in, on, under or over the bed of a lake or river is a ***permitted*** activity providing:

(a) In the case of a replacement or reconstruction, the structure is replaced or reconstructed in the same location as the original structure; and

(b) There is no permanent change to the, scale, nature or functions of the structure, except where a rule under 13.2.1 applies to that structure and the conditions of that rule are met.

13.3.2 Restricted discretionary activities: Resource consent required

13.3.2.1 Except as provided for by Rules 13.3.1.1 and 13.3.1.2, the extension, alteration, replacement or reconstruction of any structure, fixed in, on, under or over the bed of any lake or river, is a ***restricted discretionary*** activity.

In considering any resource consent for the extension, alteration, replacement or reconstruction of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the activity on:
  (i) Any natural and human use value identified in Schedule 1 for any affected water body;
  (ii) The natural character of any affected water body
  (iii) Any amenity value supported by any affected water body; and
  (iv) Any heritage value associated with any affected water body; and

(b) Flow and sediment processes; and

(c) Any adverse effect on a defence against water; and

(d) Any adverse effect on existing public access; and

(e) The method of construction; and

(f) The duration of the resource consent; and

(g) The information and monitoring requirements; and

(h) Any existing lawful activity associated with any affected water body; and

(i) Any insurance or other appropriate means of remedying the effects of failure; and

(j) Any bond; and

(k) A financial contribution if the structure is a dam, or an activity that adversely affects any Type B wetland value; and

(l) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting
The extension, alteration, replacement or reconstruction of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act). Repair or maintenance is allowed under Rule 13.3.1.1 provided there is no permanent change to the scale, nature or functions of the structure.

The work able to be carried out on structures under Rules 13.3.1.1 and 13.3.1.2 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since there is no significant change to the structure. These rules are adopted to enable such structures to be repaired, maintained, extended, altered, replaced or reconstructed while providing protection for those values and the interests of those people. Any other activity involving the extension, alteration, replacement or reconstruction of structure, that is fixed in, on, under, or over the bed of any lake or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.4 Demolition or removal of a structure

13.4.1 Permitted activities: No resource consent required

Note: Any alteration of the bed of a lake or river in association with the following activities must also comply with Rules under 13.5 in order to be classified as a permitted activity.

13.4.1.1 The demolition or removal of any structure or any part of a structure that is fixed in, on, under, or over the bed of any lake or river is a ***permitted*** activity providing:

(a) Where any part of the structure remains in situ, nothing remains above the level of the bed; and
(b) The structure is not identified as a registered historic place, a building or place identified in any district plan as being of historic value, an archaeological site or a place with interim historic place registration; and
(c) The structure is not a sacred place identified by Kai Tahu and located in any area identified as MA3 in Schedule 1D; and
(d) There is no use of explosives; and
(e) The Otago Regional Council is notified of the demolition or removal, at least seven working days prior to commencing the activity; and
(f) The demolition or removal of the structure does not cause any erosion; and
(g) The site is left tidy following the demolition or removal; and
(h) In the case of any dam structure, the dam is no more than 3 metres high, and the volume of water stored by the dam is no more than 20,000 cubic metres.

13.4.2 Restricted discretionary activities: Resource consent required

13.4.2.1 Except as provided for by Rule 13.4.1.1, the demolition or removal of any structure or any part of a structure that is fixed in, on, under, or over the bed of any lake or river is a ***restricted discretionary*** activity.

In considering any resource consent for the demolition or removal of any structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the activity on:
  (i) Any natural and human use value identified in Schedule 1 for any affected water body;
  (ii) The natural character of any affected water body;
  (iii) Any amenity value supported by any affected water body; and
  (iv) Any heritage value associated with any affected water body; and
(b) Flow and sediment processes; and
(c) Any adverse effect on a defence against water; and
(d) Any adverse effect on existing public access; and
(e) The method of demolition or removal; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any existing lawful activity associated with any affected water body; and
(i) Any bond; and
(j) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

The demolition or removal of a structure that is fixed in, on, under, or over the bed of any lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The demolition or removal of a structure under Rule 13.4.1.1 will have less adverse effect than if the structure remained in the bed. This rule is adopted to enable such demolition or removal to occur while providing protection for the natural and human use values supported by the water body and other persons. Any other activity involving the demolition or removal of a structure, that is fixed in, on, under, or over the bed of any lake or river is a restricted discretionary activity in order that any adverse effects can be assessed.

13.5 Alteration of the bed of a lake or river

Note: Alteration of the bed includes any bed disturbance, reclamation or deposition.

13.5.1 Permitted activities: No resource consent required

13.5.1.1 The disturbance of the bed of any lake or river associated with:

(i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure that is fixed in, on, under or over the bed of any lake or river; or

(ii) The clearance of debris or alluvium from within, or immediately surrounding, any structure in order to safeguard the function or structural integrity of the structure; or

(iii) The maintenance or reinstatement of a water intake, in order to enable the exercise of a lawful take of water,

is a ***permitted*** activity, providing:

(a) Except in the case of the demolition or removal of a structure, the structure is lawfully established; and

(b) Except in the case of (i), there is no increase in the scale of the existing structure; and

(c) The bed disturbance is limited to the extent necessary to undertake the work; and

(d) The bed disturbance does not cause any flooding or erosion; and

(e) The time necessary to carry out and complete the whole of the work does not exceed 10 consecutive hours in duration; and

(f) All reasonable steps are taken to minimise the release of sediment to the lake or river during the disturbance, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 250 metres downstream of the disturbance; and

(g) No lawful take of water is adversely affected as a result of the bed disturbance; and

(h) The site is left tidy following completion of the activity.

13.5.1.2 The disturbance of the bed of any river for the purpose of clearing any material that has accumulated as a result of a storm event, excluding alluvium, in order to maintain the flood carrying capacity of the bed of the river, is a ***permitted*** activity, providing:

(a) The bed disturbance is limited to the extent necessary to clear the debris; and

(b) The bed disturbance does not cause any flooding or erosion; and

(c) The time necessary to carry out and complete the whole of the work does not exceed 10 consecutive hours in duration; and

(d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 250 metres downstream of the disturbance; and
(e) No lawful take of water is adversely affected as a result of the bed disturbance; and
(f) The site is left tidy following completion of the activity.

13.5.1.3 The disturbance or reclamation of, or the deposition of any substance in, on or under, the bed of any lake or river, for the purpose of:
(i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure carried out under Rules 13.2.1.1 to 13.2.1.7, 13.3.1.1, 13.3.1.2 or 13.4.1.1; or
(ii) The repair or maintenance of any defence against water constructed or placed by artificial means,
is a ***permitted*** activity providing:
(a) The structure or defence against water is lawfully established; and
(b) There is no change to the original scale of the structure or defence against water; and
(c) The time necessary to carry out and complete the whole of the work does not exceed 10 consecutive hours in duration; and
(d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 250 metres downstream of the activity; and
(e) No lawful take of water is adversely affected as a result of the activity; and
(f) In the case of reclamation or deposition, only cleanfill is used; and
(g) The site is left tidy following completion of the activity.

13.5.1.4 The disturbance or reclamation of, or the deposition of any substance in, on or under, the bed of any lake or river, for the purpose of the reinstatement of any bank of a lake or river which has been eroded by a flood event is a ***permitted*** activity providing:
(a) There is no change to the scale of the bank existing before the flood event; and
(b) The activity is carried out within twelve months of the flood event that caused the erosion; and
(c) The time necessary to carry out and complete the whole of the work does not exceed 10 consecutive hours in duration; and

(d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 250 metres downstream of the activity; and
(e) No lawful take of water is adversely affected as a result of the repair or maintenance; and
(f) In the case of reclamation or deposition, only cleanfill is used; and
(g) The site is left tidy following completion of the activity.

13.5.1.5 The disturbance of the bed of any lake or river associated with the control of aquatic pest plants is a ***permitted*** activity providing:
(a) The control is carried out under Rule 13.7.1.1, or under a resource consent; and
(b) The bed disturbance is limited to that which is necessary for the removal of the plant material.

13.5.1.6 Except as provided for by Rule 13.5.1.1, the extraction of alluvium within the bed of a river is a ***permitted*** activity, providing:
(a) No person takes more than 20 cubic metres in any month; and
(b) The alluvium is not taken from the wet bed of the river and the surface of the remaining alluvium is not left lower than the level of the water in the river; and
(c) The area from which the material is taken is smoothed over, as far as practicable; and
(d) The activity is not carried out within 20 metres of any structure which has foundations in the river bed, or any ford or pipeline; and
(e) No material is taken directly from the bank or from any defence against water; and
(f) The activity does not occur within any wetland identified in Schedule 9.

13.5.1.7 Suction dredge mining within the bed of a river is a ***permitted*** activity providing:
(a) The internal diameter of the nozzle does not exceed 150 mm; and
(b) The mining activity does not occur in those rivers, or parts of rivers, listed in Schedule 7 during any identified time period; and
(c) The mining activity is not carried out within 20 metres of any structure which has foundations in the river bed, or any ford or pipeline; and
(d) The activity does not cause any flooding or erosion; and
(e) No refuelling is carried out while the dredge is within the wet bed of the river unless an effective spill tray has been installed; and

(f) The area dredged lies within the wet bed of the river, and no material is removed from within or under the banks of the river; and
(g) No suction dredge is operated within 500 metres of another dredge; and
(h) No explosives or earthmoving machinery apart from the dredge is used to move material in the river bed; and
(i) Any rocks moved to allow suction dredging to occur are returned as close as possible to the site from which they were removed; and
(j) There is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 100 metres downstream of the point of discharge of the dredge; and
(k) No lawful take of water is adversely affected as a result of the bed disturbance.

13.5.1.8 The disturbance of the bed of any lake or river by livestock is a ***permitted*** activity, providing:
(a) No lawful take of water is adversely affected as a result of the activity; and
(b) The activity does not cause or induce conspicuous slumping, pugging or erosion; and
(c) The activity does not cause any conspicuous change in the colour or visual clarity of the lake or river; and
(d) The activity does not adversely affect any Type A or B value of any wetland identified in Schedule 9; and
(e) The activity does not significantly disturb indigenous vegetation or the habitat of indigenous fauna, trout or salmon in, on, or under the bed of any lake or river; and
(f) No feeding out occurs on the bed of any lake or river.

Note: This rule does not authorise any discharge to water or discharge to land in circumstances where contaminants may enter water. Sections 15(1)(a) and 15(1)(b) of the Act apply.

13.5.1.9 The drilling of land on the bed of any lake or river, other than for the purpose of creating a bore, and any disturbance of the bed associated with that drilling, is a ***permitted*** activity providing:
(a) The bed disturbance is limited to the extent necessary for the drilling; and
(b) The drill hole is filled or sealed on completion of the work so that contaminants are prevented from entering the hole at any level; and
(c) The activity does not occur in the wet bed; and
(d) The site is left tidy following completion of the activity.

13.5.2 Restricted discretionary activities: Resource consent required

13.5.2.1 Except as provided for by Rules 13.5.1.1 and 13.5.1.6, the extraction of alluvium within the bed of a lake or river is a ***restricted discretionary*** activity.

In considering any resource consent for the extraction of alluvium in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) Any adverse effects of the activity on:
  (i) Any natural and human use value identified in Schedule 1 for any affected water body;
  (ii) The natural character of any affected water body;
  (iii) Any amenity value supported by any affected water body
  (iv) Any heritage value associated with any affected water body; and
  (v) Any significant wetland identified in Schedule 9; and
(b) Any financial contribution for Type B wetland values that are adversely affected; and
(c) Any adverse effect on a defence against water; and
(d) The quantity of alluvium to be extracted, and the location and the method of removal; and
(e) Any adverse effect on existing public access; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any existing lawful activity associated with any affected water body; and
(i) Any bond; and
(j) The review of conditions of the resource consent.

Except in the case of extraction from the wet bed of a lake or river, applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

13.5.3 Discretionary activities: Resource consent required

13.5.3.1 Except as provided for by Rules 13.5.1.1 to 13.5.2.1 the alteration of the bed of any lake or river is a ***discretionary*** activity.

Principal reasons for adopting

The alteration of the bed of a lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

No person may disturb, remove, damage, or destroy any plant or part of any plant (whether exotic or indigenous) or the habitats of any such plants or of animals in, on, or under the bed of any lake or river in a manner that contravenes a rule in a regional plan or proposed regional plan, unless that activity is expressly allowed by a resource

consent or is an existing lawful use allowed by Section 20A of the Act (Resource Management Act Section 13(2)(b)).

In relation to Rule 13.5.1.8, Conditions (a) to (d) of the rule address Section 13(1) of the Resource Management Act and Conditions (d) and (e) address Section 13(2)(b) of the Resource Management Act. Rules 13.5.2.1 and 13.5.3.1 provide for the preservation of the natural state of the shoreline of Lake Wanaka, consistent with Section 4 (c) of the Lake Wanaka Preservation Act 1973 ~~which is reprinted in Schedule 14 of this Plan~~.

The alteration of the bed of a lake or river under Rules 13.5.1.1 to 13.5.1.9 will have no more than minor adverse effects on the natural and human use values supported by water bodies, or on any other person, since the activities involve minimal disturbance of the bed. Any other activity involving the alteration of the bed of a lake or river is either a restricted discretionary or a discretionary activity in order that any adverse effects can be assessed.

Decision: E1e

13.6 The introduction or planting of vegetation

Note: The Otago Regional Council's Pest Management Strategy 2009 addresses the management of pest plants in Otago under the Biosecurity Act 1993. The Biosecurity Act 1993 bans a number of aquatic plants that have been declared unwanted organisms, from sale, distribution and propagation.

13.6.1 Prohibited activities: No resource consent granted

13.6.1.1 The introduction of material of the following species:

(a) Lagarosiphon *Lagarosiphon major*; or
(b) Eel Grass Vallisneria spiralis; or
(c) Egeria *Egeria densa*; or
(d) Hornwort Ceratophyllum demersum; or
(e) Hydrilla Hydrilla verticillata; or
(f) Sagittaria Sagittaria graminea ssp platyphylla; or
(g) Spartina Spartina anglicatownsendii; or
(h) Salvinia *Salvinia molesta*; or
(i) Water Hyacinth *Eichhornia crassipes*; or
(j) Water Lettuce *Pistia stratiotes*,

to the bed or water of any Otago lake or river is a ***prohibited*** activity for which no resource consent will be granted.

13.6.2 Permitted activities: No resource consent required

13.6.2.1 The introduction or planting of any plant to or on the bed of any lake or river for the purpose of remedying or mitigating the adverse effects of flooding, erosion, or non-point source discharge of contaminants, or to restore or enhance habitat, is a ***permitted*** activity providing:

(a) Crack Willow *Salix fragilis* or Grey Willow *Salix cinerea* is not introduced to an area where it does not currently exist; and
(b) The plant is not any pest plant listed in the Pest Management Strategy for Otago 2001; and
(c) All reasonable steps are taken to minimise the release of sediment to the lake or river during the introduction or planting, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 100 metres downstream of the introduction or planting; and
(d) The introduction or planting does not cause any flooding or erosion; and
(e) The site is left tidy following the introduction or planting.

13.6.3 Discretionary activities: Resource consent required

13.6.3.1 Except as provided for by Rules 13.6.1.1 and 13.6.2.1, the introduction or planting of vegetation to the bed of any lake or river is a ***discretionary*** activity.

Principal reasons for adopting

The introduction or planting of any plant, or any part of any plant (whether exotic or indigenous) on the bed of a lake or river can only occur if it is expressly allowed by a rule in a regional plan or any proposed regional plan, or by a resource consent (Section 13(1) of the Resource Management Act).

The distribution of those plants listed in Rule 13.6.1.1 is banned under the Biosecurity Act 1993 as they have been declared unwanted organisms. It is therefore appropriate to prohibit their introduction to the beds or the waters of Otago's lakes or rivers.

The introduction of vegetation under Rule 13.6.2.1 will have positive effects, including remedying or mitigating the adverse effects of flooding, erosion, or non-point source discharge of contaminants, and the restoration of habitat. This rule is adopted to enable such beneficial planting to occur. It excludes Crack and Grey willow, where they are not already present, due to their invasive nature. Any other activity involving the introduction of any plant to the bed of a lake or river is a discretionary activity in order that any adverse effects can be assessed.

13.7 The removal of vegetation

13.7.1 Permitted activities: No resource consent required

13.7.1.1 The physical removal of material of any of the following plants:
(i) Lagarosiphon Lagarosiphon major; or
(ii) Eel Grass Vallisneria spiralis; or
(iii) Egeria Egeria densa; or
(iv) Hornwort Ceratophyllum demersum; or
(v) Hydrilla Hydrilla verticillata; or
(vi) Sagittaria Sagittaria graminea ssp platyphylla; or
(vii) Spartina Spartina anglica; or

(viii) Salvinia Salvinia molesta; or
(ix) Water Hyacinth Eichhornia crassipes; or
(x) Water Lettuce Pistia stratiotes,

from the bed of any lake or river is a ***permitted*** activity, providing:

(a) Except in the case of Lagarosiphon *Lagarosiphon major* in Lake Wanaka or Lake Dunstan, containment is utilised to ensure no weed fragments escape; and
(b) In the case of Lagarosiphon *Lagarosiphon major* in Lake Wanaka, containment is utilised to ensure no floating mats or rafts of weed fragments are released onto the lake surface; and
(c) The Otago Regional Council is notified of the location and nature of the removal, at least seven working days prior to commencing the removal; and
(d) The site is left tidy following the removal.

13.7.2 Controlled Activities: Resource consent required but always granted

13.7.2.1 Except as provided for by Rule 13.7.1.1, physical removal of material of any of the following plants:

(i) Lagarosiphon Lagarosiphon major; or
(ii) Eel Grass Vallisneria spiralis; or
(iii) Egeria Egeria densa; or
(iv) Hornwort Ceratophyllum demersum; or
(v) Hydrilla Hydrilla verticillata; or
(vi) Sagittaria Sagittaria graminea ssp platyphylla; or
(vii) Spartina Spartina anglica; or
(viii) Salvinia Salvinia molesta; or
(ix) Water Hyacinth Eichhornia crassipes; or
(x) Water Lettuce Pistia stratiotes,

from the bed of any lake or river is a ***controlled*** activity.

In granting any resource consent for the removal of material of the above identified plants in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

(a) The method of removal; and
(b) The duration of the resource consent; and
(c) The information and monitoring requirements; and
(d) Any bond; and
(e) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

No person may disturb, remove, damage or destroy any plant or any part of any plant (whether exotic or indigenous), or the habitats of any such plants or of animals, in,

on, or under the bed of any lake or river in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless it is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 13(2)(b)).

The removal of material of the identified plants under Rule 13.7.2.1 will ensure that any spread of the plants caused by their removal is avoided. Any other removal of material of the identified plants from the bed of any lake of river is a controlled activity so that the Otago Regional Council has the opportunity to control the adverse effects likely to arise from that removal.

14

Rules: Land Use other than in Lake or River Beds

14.1 Bore construction

Note: The construction of a bore is carried out for the purpose of taking groundwater, or which results in groundwater being taken. This is distinct from the activities of:

- The drilling of land carried out for any other purpose which is covered by rules under 14.2;
- The taking of groundwater, which is covered by rules under 12.2 in Chapter 12.

14.1.1 Controlled activities: Resource consent required but always granted

14.1.1.1 The excavation, drilling or other disturbance of land, other than in the bed of any lake or river, for the purpose of creating a bore, is a ***controlled*** activity.

In granting any resource consent for the excavation, drilling or other disturbance of land in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

(a) The location of the bore including its relationship to other bores and other activities; and
(b) The planned depth of the bore; and
(c) The management of the bore head and maintenance of the bore; and
(d) The nature of the bore; and
(e) The method of drilling or excavation; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any bond; and
(i) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

This rule is adopted to ensure that the Otago Regional Council has the opportunity to control the adverse environmental effects that may arise from penetration of an aquifer resulting from bore hole construction.

14.2 Drilling

14.2.1 Permitted activities: No resource consent required

14.2.1.1 The drilling of land, other than for the purpose of creating a bore, and other than on the bed of any lake or river, is a ***permitted*** activity providing:

(a) The drilling does not occur on land over an aquifer identified in Maps C1–C17 or the Papakaio Aquifer on Map D1; and

(b) The hole is filled or sealed on completion of the work so that contaminants are prevented from entering the hole at any level.

14.2.2 Controlled activities: Resource consent required but always granted

14.2.2.1 The drilling of land over an aquifer identified in Maps C1–C17 or the Papakaio Aquifer on Map D1, other than for the purpose of creating a bore and other than on the bed of any lake or river, is a ***controlled*** activity.

In granting any resource consent for the drilling of land in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

(a) The potential for contamination of groundwater; and
(b) The location of the drilling; and
(c) The planned depth of the drilling; and
(d) The management of the drill hole on completion; and
(e) The method of drilling; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any bond; and
(i) The review of conditions of the resource consent.

Applications may be considered without notification under Section 93 and without service under Section 94(1) of the Resource Management Act on persons who, in the opinion of the consent authority, may be adversely affected by the activity.

14.2.3 Restricted discretionary activities: Resource consent required

14.2.3.1 Except as provided by Rules 14.2.1.1 and 14.2.2.1, the drilling of land, other than for the purpose of creating a bore and other than on the bed of any lake or river, is a ***restricted discretionary*** activity.

In considering any resource consent for the drilling of land in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:

(a) The potential for contamination of groundwater; and
(b) The location of the drilling; and
(c) The planned depth of the drilling; and

(d) The management of the drill hole on completion; and
(e) The method of drilling; and
(f) The duration of the resource consent; and
(g) The information and monitoring requirements; and
(h) Any bond; and
(i) The review of conditions of the resource consent.

Principal reasons for adopting
No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

Rule 14.2.1.1 is adopted to enable drilling to occur, but in a manner that protects groundwater resources from the entry of contaminants. Rule 14.2.2.1 is adopted to ensure that the Otago Regional Council has the opportunity to control the adverse environmental effects that may arise whenever an identified aquifer is penetrated. Any other drilling is a restricted discretionary activity in order that any adverse effects on groundwater can be assessed.

14.3 The erection, placement, extension, alteration, replacement, reconstruction, demolition or removal of a defence against water other than on the bed of any lake or river

14.3.1 Permitted Activities: No Resource consent required

14.3.1.1 The alteration or reconstruction of any defence against water, other than on the bed of any lake or river, is a ***permitted*** activity providing:
(a) There is no permanent change to the scale, nature or function of the defence against water.

14.3.2 Discretionary Activities: Resource consent required

14.3.2.1 Except as provided for in Rule 14.3.1.1, the erection, placement, extension, alteration, replacement, reconstruction, demolition or removal, of any defence against water, other than on the bed of any lake or river, is a ***discretionary*** activity.

Principal reasons for adopting
No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

The activities under Rule 14.3.1.1 will have no more than minor adverse effects on the environment. This rule is adopted to ensure that the Otago Regional Council has the opportunity to control defences against water so that they are constructed and maintained in a manner that does not exacerbate flood hazards or cause significant adverse effects on the environment.

14.4 Structures other than defences against water on the margins of lakes and rivers

14.4.1 Permitted Activities: No Resource consent required

14.4.1.1 The erection or placement of any structure, other than a defence against water, within 7 metres of the margin of any lake, or within 7 metres of the top of the bank of any river, is a ***permitted*** activity, providing:

(a) It does not result in the physical prevention or obstruction of access for works to avoid or mitigate any natural hazard; and

(b) The Otago Regional Council is notified in writing, of the location and nature of the structure, at least seven working days prior to commencing the erection or placement.

14.4.2 Restricted discretionary activities: Resource consent required

14.4.2.1 Except as provided for by Rule 14.4.1.1, the erection or placement of any structure, other than a defence against water, within 7 metres of the margin of any lake, or within 7 metres of the top of the bank of any river, is a ***restricted discretionary*** activity.

In considering any resource consent for the erection or placement of a structure in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following matters:

(a) The potential for physical access along the river or lake, for works to avoid or mitigate any natural hazard, to be prevented or obstructed, and the degree to which such access will be obstructed.

Principal reasons for adopting

No person may use any land in a manner that contravenes a rule in a regional plan or any proposed regional plan, unless that activity is expressly allowed by a resource consent or is an existing lawful use (Resource Management Act Section 9(3)).

Rule 14.4.1.1 is adopted to ensure that no person is restricted by a structure from having ready access along lakes or rivers, with machinery if necessary, in order to carry out works for the purpose of hazard avoidance or mitigation. Any other erection or placement of a structure, other than a defence against water, is a restricted discretionary activity, in order that any adverse effects on physical access for this purpose can be assessed.

15

Methods other than Rules

15.1 Introduction

This chapter of the Plan establishes the methods other than rules which will be used to achieve the Plan's objectives.

15.2 Liaison

15.2.1 Restrictions on taking water

15.2.1.1 The Otago Regional Council will liaise with relevant water supply authorities to ensure that, when takes of water by resource consent holders in a catchment are restricted, any consumption of water in a community supply taken from that catchment at the time of restriction is subject to hosing restrictions.

Principal reasons for adopting
This method is adopted to ensure that the disadvantages resulting from water shortages are shared by all those in the community using water.

15.2.2 Water allocation committees and water management groups

15.2.2.1 The Otago Regional Council will liaise with existing water allocation committees established under ~~Policies~~ Policy 6.4.12 ~~and 9.4.12~~ and water management groups established under Policy 6.4.12A, to establish and manage regimes for the rationing of the taking of surface water or groundwater.

Principal reasons for adopting
This method is adopted to ensure that those taking water, and who may be subject to minimum flow restrictions or aquifer restriction levels ~~and pressures~~, are able to contribute effectively to the preparation of regimes for day-to-day rationing of water and the implementation of restrictions on the taking of water. Information about flows, levels and pressures will be provided to ensure such committees and groups will act in a timely and effective manner whenever restriction situations are imminent.

Decision: C1c

15.2.3 Liaison with water users

15.2.3.1 The Otago Regional Council will liaise with water users to assist with achieving the objectives and policies of the Plan.

15.2.3.2 The Otago Regional Council will help facilitate responses to local water needs, and collaborate with the community and others in scoping strategic options for development of new infrastructure.

Principal reasons for adopting
~~This method is~~ These methods are adopted to recognise the need for the Otago Regional Council to have an ongoing relationship with all people using the region's water bodies and to assist in obtaining optimum benefit

from the use of Otago's water resources. Activities undertaken within water bodies can affect other lawful users and, through liaison, the concerns of all users of water bodies can be considered.

Decision: C1e

15.2.4 Coordination of approaches for the management of spills

15.2.4.1 In the event of any contaminant spill, the Otago Regional Council will work with other relevant agencies to clean-up, treat or remove the contaminant.

15.2.4.2 In the case of any event causing the accumulation of animal carcasses on the bed of any lake or river, and where ownership of the carcasses cannot be established, the Otago Regional Council will coordinate efforts for the clean-up or removal of the carcasses with the relevant city or district council or any other responsible party.

Principal reasons for adopting

These methods are adopted to ensure that there can be a quick and effective response to the accidental spill of contaminants and the accumulation of animal carcasses on the bed of any lake or river. There are several agencies who have an involvement in responding to these events. It is important that there is a coordinated response among the agencies to ensure that the spill or carcasses are quickly and effectively dealt with.

15.2.5 Promoting the treatment of stormwater

15.2.5.1 The Otago Regional Council will encourage operators of existing stormwater reticulation systems to utilise techniques that will assist to reduce the level of contaminants discharged from the systems.

Principal reasons for adopting

This method is adopted in order to maintain or enhance the quality of water in receiving environments, and thus the natural and human use values supported by water bodies. Techniques such as grassed swales, buffer strips, riparian vegetation and constructed wetlands can assist to trap sediment and remove nutrients present in existing stormwater discharges. The Otago Regional Council will encourage operators to use such techniques in existing stormwater reticulation systems, to reduce the level of contaminants present in the stormwater.

15.2.6 Recreational sanitary wastes and septic tank use

15.2.6.1 The Otago Regional Council will consult with city and district councils, and commercial recreation operators, to ensure the adequate provision of collection points for recreational sanitary wastes and human sewage from transport or recreational vehicles and vessels.

15.2.6.2 The Otago Regional Council will, through liaison with city and district councils, promote and encourage the development and use of improved septic tank technology, and other innovative or alternative technology for the on-site treatment and disposal of domestic effluent.

15.2.6.3 The Otago Regional Council will encourage city and district councils to install reticulated systems for sewage, where it is appropriate and feasible, in any site where the conditions are such that on-site waste treatment could result in an adverse effect on the environment.

Principal reasons for adopting

These methods are adopted to prevent the uncontrolled discharge of human sewage to the environment from vehicles such as campervans, or from septic tank systems which are not performing adequately. It may be necessary to avoid on-site sewage discharges where there is concern about the susceptibility of the receiving environment to such discharges.

15.2.7 Advocacy to city and district councils about land use controls

15.2.7.1 The Otago Regional Council will seek the inclusion of appropriate provisions within district plans, and appropriate conditions on land use consents, that will assist to further the objectives and policies contained in this Plan.

Principal reasons for adopting

This method is adopted to promote integrated management of the adverse effects of land use on Otago's lakes, rivers, aquifers and wetlands. It recognises that city and district councils have the opportunity to manage land uses that can result in such adverse effects, through rules and other methods in district plans. Such methods should ensure that land is used and developed in a manner that assists to maintain or enhance natural and human use values supported by water bodies.

15.2.8 Activities on beds or margins of lakes and rivers

15.2.8.1 The Otago Regional Council will liaise with city and district councils to ensure appropriate land use provisions are included within district plans concerning activities on the bed or margins of lakes or rivers.

15.2.8.2 The Otago Regional Council will liaise with, and where necessary hold joint hearings with, city and district councils concerning resource consent applications for activities on the bed or margins of lakes or rivers.

15.2.8.3 The Otago Regional Council will liaise with the Department of Conservation, Fish and Game Councils, Kai Tahu, Historic Places Trust, landholders and other interested parties to ensure that, where activities could disturb the bed of any wetland, lake or

river, any adverse effect on aquatic habitat or heritage values is avoided, remedied or mitigated.

Principal reasons for adopting

Activities on the margins of lakes and rivers can have adverse effects on adjacent land in the bed of the lake or river and vice versa. Provisions should be included in district plans to recognise the potential for such "off-site" effects and ensure that they are appropriately managed. Where such provisions have already been included, both regional and district planning matters may apply in respect of the activity. The first two methods are adopted in recognition of the need for cooperation and consistency between the approaches of the different authorities in order to achieve the integrated management of any adverse effects.

The third method is adopted to encourage cooperative arrangements between the Otago Regional Council and other interested parties in the management of bed disturbance. Such arrangements will ensure that the Council is informed of, and can consider, the concerns of other parties with respect to particular activities or works.

15.2.9 Consultation with Kai Tahu

15.2.9.1 The Otago Regional Council will undertake and promote consultation with Kai Tahu ki Otago and take account of Iwi Management Plans in the management of Otago's water resources.

Principal reasons for adopting

The use of consultation to address Kai Tahu values is seen by Kai Tahu as being the most appropriate way to recognise and protect the cultural relationship Kai Tahu hold with Otago's water resources. Iwi management plans, particularly the *Kai Tahu ki Otago Natural Resource Management Plan*, form a basis for consultation with Kai Tahu. Other instruments made between the Otago Regional Council and Kai Tahu ki Otago provide a mechanism for consultation by the Council and water users, with Kai Tahu.

15.3 Information channels

15.3.1 Provision of information about effective water utilisation

15.3.1.1 The Otago Regional Council will encourage the efficient use of water by providing information to water users concerning:

(a) Avoidance of wasteful practices; and

(b) Opportunities for water storage during periods of high water availability~~.~~; and

(c) Opportunities for water conservation in general and particularly during periods of low flows or drought~~.~~; and

(d) Water resources available for taking.

Principal reasons for adopting

This method is adopted to enable water users to make decisions that result in the more efficient use of water than is currently the case. The information

provided through this method will ensure better targeting of water use in irrigation or industrial practices and will result in less demand on the water resource when availability is low.

Furthermore, this method will ensure that individual water users and water management groups are provided with information on infrastructure options for taking, storing, transporting and distributing water, so that informed choices are made about effective water utilisation and management.

This method also ensures that the community and water users are informed, in a timely manner, of the potential for breaching minimum flows and aquifer restriction levels, and the likely onset of a water shortage direction. Water management by either the Council or water management groups will be required until take suspensions and water shortage directions are removed.

15.3.2 Provision of information relating to the results of monitoring water bodies

15.3.2.1 Information gained by the Otago Regional Council from monitoring of water and water bodies will be made available as necessary and appropriate.

Principal reasons for adopting

This method is adopted to ensure that there is information available in an appropriate form to keep user groups and the community aware of conditions and trends within Otago's water resources and water bodies. This will assist water users in making management decisions about their use of water. Monitoring information will be provided through methods as outlined in section 19.3 of this Plan. This information provision will:

(a) Allow the community to discuss the implications of the information obtained;
(b) Assist in the identification of new issues;
(c) Provide an opportunity for feedback on proposals to address issues; and
(d) Enable holders of resource consents to be informed of river flows and aquifer levels and pressures, particularly when these are approaching the point at which takes may be restricted.

15.3.3 Provision of information relating to flood risk

15.3.3.1 The Otago Regional Council will provide advice about the likely susceptibility of the location of any proposed structure to flooding, either when a resource consent applicant, or other individual, requests the information, or when a city or district council requires the information in preparing district plans.

15.3.3.2 The Otago Regional Council will provide information to each city and district council concerning the location, extent and likely characteristics of floodplains, floodways, and ponding areas in its district.

Principal reasons for adopting
These methods reflect the role that regional councils have played in investigating the effects of floods and providing their findings to authorities involved in land use planning. The first method is adopted because it is important to provide information that is available, upon request, in order to enable people and communities to pursue activities in beds and margins of wetlands, lakes or rivers with safety. Similarly, the second method is adopted because it is essential that city and district councils are informed of the likely costs of allowing certain types of land use development in places prone to inundation. The city or district council may then prepare a hazard register based on this information and inform developers.

15.3.4 Provision of information relating to clean-up of accidental spills

15.3.4.1 In the event of any contaminant spill, the Otago Regional Council will provide advice to the spiller, where known, relating to options for the disposal or treatment of the contaminant.

Principal reasons for adopting
This method is adopted to ensure that there is appropriate post-spill management in response to spill events that are likely to lead to water contamination.

15.4 Promotion and education

15.4.1 The maintenance or enhancement of public access

15.4.1.1 The Otago Regional Council will assist in providing or improving public access to and along Otago's water bodies and will encourage city and district councils, the Department of Conservation and landholders to provide or improve public access to and along Otago's water bodies, where appropriate.

Principal reasons for adopting
Public access to and along a water body may be restricted due to the fact that there are no formal provisions for legal public access. This method is adopted to enhance public access in such situations by encouraging city or district councils to provide or improve alternative access through provision of public roading or establishment of esplanade reserves, esplanade strips, or access strips. Encouragement will also be given to the Department of Conservation to provide marginal strips along water bodies and Walkways to them, to achieve formal access. Informal public access arrangements can, in addition, be promoted among landholders. Although less secure, such arrangements can assist in maintaining or enhancing public access to and along lakes and rivers.

15.4.2 Advocacy and promotion to landholders and industry groups

15.4.2.1 The Otago Regional Council will use promotion and education to encourage land management which:

(a) Does not adversely affect the flow of water in times of low flow;

(b) Minimises the amount of nutrients, sediment or other contaminants present in runoff;
(c) Benefits the natural character, or the amenity and habitat values, of wetlands, lakes or rivers and their margins;
(d) Ensures the retention of appropriate existing riparian vegetation, and allow appropriate revegetation;
(e) Does not restrict public access to or along the margins of water bodies;
(f) Introduces innovative clean technologies or waste minimisation methodologies; and
(g) Assists the retention or protection of any heritage value associated with any wetland, lake or river.

15.4.2.2 The Otago Regional Council will provide information to landholders, industry groups and the general public about mechanisms and techniques to maintain or enhance water quality, such as:
(a) Minimising land disturbance;
(b) Maintaining or enhancing appropriate riparian vegetation and buffer strips;
(c) Nutrient budgeting;
(d) Avoiding the inappropriate use of stormwater systems;
(e) Development and implementation of contingency plans for the accidental spill of contaminants;
(f) Avoiding stock access to water bodies; and
(g) Upgrading existing groundwater bores to prevent entry of contaminants.

Principal reasons for adopting
These methods are adopted to ensure resource users and the wider community are aware of actions that can be taken to reduce the adverse effects of activities on Otago's water resources. By educating landholders and industry groups of the effect of their activities, the Council can encourage appropriate changes to the behaviour of these individuals or groups.

15.4.3 Promoting the protection of wetlands, lakes and rivers, and their values

15.4.3.1 The Otago Regional Council will encourage landholders to avoid undertaking activities on, or adjacent to, wetlands that will adversely affect wetland values.

15.4.3.2 The Otago Regional Council will support the protection of significant indigenous biota and habitat, and the preservation of the natural character of wetlands, lakes and rivers.

Principal reasons for adopting
These methods are adopted to promote activities of benefit to wetlands and other water bodies, or their values, and to avoid activities that could adversely affect them. By advocating directly to the relevant landholders, the

Council can encourage appropriate actions on the part of the landholder to voluntarily protect the natural and human use values supported by the water body. It is therefore also appropriate for the Council to support landholders where they are already protecting such values, whether by formal covenant, fencing or other means.

15.5 Codes of practice and environmental management systems

15.5.1 Development and implementation of codes of practice and environmental management systems

15.5.1.1 The Otago Regional Council will encourage and assist agricultural, recreational and industry groups to prepare codes of practice and environmental management systems for various land use activities, in order to reduce adverse effects on water.

15.5.1.2 The Otago Regional Council will encourage landholders and industry groups to implement codes of practice, environmental management systems and management guidelines that assist to avoid, remedy or mitigate any adverse effects of activities on Otago's water resources and any adverse effects of land discharges on soil or land stability.

Land use activities of particular concern include:

(a) Fertiliser application;
(b) Use and storage of hazardous substances;
(c) Agricultural and horticultural spraying;
(d) Intensive livestock activities, including dairy farming, pig farming and silage production;
(e) Land use and disturbance in the margins of lakes and rivers;
(f) Extraction of bed material from Otago's lakes and rivers;
(g) Forestry operations; and
(h) Other activities which can involve land disturbance.

The Council will support codes of practice and management guidelines that reduce the adverse effects of land use activities on water quality. This will involve:

(i) Working with landholders and relevant industry and community groups to identify how the identified land use activities can be carried out in ways which minimise non-point source contamination;
(ii) Encouraging industry and landholders to implement, where appropriate, existing codes of practice or management guidelines; and
(iii) Maintaining a register of codes of practice and guidelines, supplied by industries that, if adhered to, would assist with compliance with specified rules in this Plan.

Principal reasons for adopting
Codes of practice and environmental management systems set guidelines or standards, and practical mechanisms to influence the use and development of land and the effects of activities on water. Although generally voluntary, codes of practice and environmental management systems are recognised as one of the options that are at the Otago Regional Council's disposal, to achieve desirable outcomes for water bodies. An environmental management system may be developed which is applicable to the specific needs of a single business, while a code of practice may be developed for use throughout an industry.

The first method is adopted to encourage the development of codes of practice and environmental management systems, while the second method is adopted to ensure ongoing support is provided once guidelines are in place.

15.6 Remedial works

15.6.1 Remedying physical degradation

15.6.1.1 The Otago Regional Council will identify and seek to enhance those parts of wetlands, lakes and rivers which have been physically degraded by land use activities.

Principal reasons for adopting
This method is adopted to ensure that there is recognition of those parts of wetlands, lakes and rivers and their margins where degradation has occurred as a result of land use activities. Identification of degraded areas will enable appropriate remedial work to be undertaken. Degradation can result in a loss of habitat, natural character and amenity values supported by a water body. The "Enhancing Otago's Rivers" programme has been undertaken to identify areas where degradation has occurred. The details of the work that might be undertaken each year will be open to public submissions as part of the Otago Regional Council's Annual Plan process.

15.7 Deemed permits

15.7.1 Methods and strategies for deemed permits

15.7.1.1 The Otago Regional Council will, with the water users, investigate and develop methods and strategies for the orderly transition of deemed permits to resource consents, given that the deemed permits will expire on 1 October 2021.

Principal reasons for adopting
The Resource Management Act provides that deemed permits will expire in 2021. Deemed permits have become a significant element of Otago's water management regime and confer significant benefits upon the region's people and communities.

The exercise of deemed permits can constrain opportunities to implement minimum flows established by this Plan to maintain the life-supporting capacity for aquatic ecosystems and natural character of rivers.

The Regional Council will assist deemed permit holders with the development of an appropriate management regime to replace deemed permits when they expire. The Council, in partnership with the affected community, will assist with appropriate investigations and monitoring of the effects of deemed permits.

This method is also adopted to implement Policy 6.6.3 to work with and seek co-operation of deemed permit holders in achieving observance of minimum flows, matching takes with needs and measuring takes and return flows.

It is therefore necessary to initiate an orderly transition from deemed permits to resource consents under the Resource Management Act.

15.8 Methods for calculating allocation and applying minimum flows

15.8.1 Methodology for calculating consented 7-day take and assessed actual take

15.8.1.1 The Otago Regional Council will use the following process when calculating the consented 7-day take of any catchment area for the purposes of Policy 6.4.2(a)(ii) and 6.4.2(b)(ii):

(a) Establish the weekly rate of surface water take authorised by all consents existing in the catchment at 28 February 1998 (or 19 February 2005 in Welcome Creek); and

(aa) Establish the weekly rate of connected groundwater takes authorised by all consents existing at 10 April 2010; and

(b) Where a consent does not specify a weekly rate the monthly, daily or instantaneous rate will be converted into a weekly rate; and

(c) Eliminate takes that immediately return all of that water to the river, and takes that are solely a re-take of irrigation runoff water; and

(d) Eliminate takes that have a minimum flow higher than that set by Schedule 2A.

In calculating a catchment's assessed actual take for the purposes of Policy 6.4.9(a), steps (a) to (d) above are followed by:

(a) Eliminate takes that cannot be exercised, whether due to legal or physical constraints, when flows in the catchment main stem are at the natural 7-day mean annual low flow; and

(b) Establish at what flow the takes identified in (e) above will be exercised, and reinstate if the new allocation may interfere; and

(c) Consider eliminating mining privilege takes which are not currently being exercised.

Principal reasons for adopting
This method is adopted to assist in determining the allocation status of catchments in order to establish whether further primary allocation is available, in accordance with Policy 6.4.2, and to assist in calculating the minimum flow set in accordance with Policy 6.4.9(a).

Decisions: B10a, A2c, A3i

15.8.1A Methodology for determining supplementary allocation

15.8.1A.1 Except where specified in Schedule 2B, the Otago Regional Council will assign supplementary allocation blocks for any catchment area for the purposes of Policy 6.4.9(a) using the following table:

7 day mean annual low flow of catchment (litres per second)	Supplementary allocation block (litres per second)
< 10	50
10 – 299	100
300 – 999	250
> 1000	500

The size of the first and any subsequent supplementary allocation blocks are based on the 7-day mean annual low flow of the catchment, and ensure flow variability is maintained.

Decisions: A4a, E1a

15.8.1A.2 The Otago Regional Council will use the following process when calculating the supplementary minimum flow for supplementary allocation block(s) for any catchment area, where assessed actual take is unable to be calculated for the purposes of Policy 6.4.9(a):

(a) Establish the primary allocation under Policy 6.4.2;

(b) Add a volume equivalent to the first supplementary allocation block for that catchment assigned under Method 15.8.1A.1;

(c) For each subsequent supplementary allocation block, add the volume equivalent to that supplementary allocation block for that catchment, assigned under Method 15.8.1A.1.

The formula for calculating the supplementary minimum flows is therefore as follows:

Supplementary minimum flow = Primary allocation + Supplementary allocation(s)

Principal reasons for adopting

These methods are adopted to provide certainty and consistency in the determination of the size of supplementary allocation blocks, which in turn determines the associated supplementary minimum flow.

15.8.2 Methodology for tracking minimum flows

15.8.2.1 The Otago Regional Council will use the existing flow recorder sites listed in Schedule 2 to track Schedule 2 river flows in order to suspend taking, when Schedule 2 minimum flows have been reached, in accordance with Policy 6.4.11.

15.8.2.2 Outside Schedule 2 areas, where no flow recorder site is currently available and where there are takes present that require flow monitoring, one or more of the following techniques may be used to track river flows:

(a) Installing a continuous flow recorder station;
(b) Installing a fully rated staff gauge site, manually read at times of low flow on an as-required basis;
(c) Utilising a continuous flow recorder station on another river as an indicator of flows in the source river; or
(d) Using one-off flow gaugings, undertaken on an as-required basis.

River flows are to be measured at the catchment's discharge point, or as close as practicable upstream of that point having regard to any physical constraints.

Principal reasons for adopting

These methods are adopted to indicate the various possible means for tracking river flows, in order to implement policies under section 6.4 of this Plan. The measuring of flows becomes particularly critical when the minimum flows set in the Plan are approached.

15.9 Gathering of information

15.9.1 Resource investigations

15.9.1.1 The Otago Regional Council, together with water users, relevant agencies and the affected community, will gather information that supports future management decisions on Otago's water resources.

15.9.1.2 The Otago Regional Council will encourage and undertake research as is necessary to improve knowledge about the natural and human use values of Otago's water resources.

15.9.1.3 The Otago Regional Council, together with water users, relevant agencies and the affected community, will:

(a) Establish a priority order for investigations into the effects of deemed permits (mining privileges) and resource consents for taking surface water on Otago's water bodies and their habitat values, within two years of this Plan becoming operative; and

(b) Identify water bodies with significant native fish values within five years of this Plan becoming operative; and

(c) Commence investigations into the effects of deemed permits (mining privileges) and resource consents for the taking of surface water on Otago's water bodies and their habitat values, within five years of this Plan becoming operative.

15.9.1.4 The Otago Regional Council will use the information available from Methods 15.9.1.1 to 15.9.1.3 to establish minimum flows for catchments not in Schedule 2, to be added to Schedule 2A by way of plan change.

Principal reasons for adopting

These methods are adopted to assist with:

- Making decisions on resource consent applications;
- Monitoring and review of the Plan's provisions;
- Providing for the transition from deemed permits (mining privileges) to water permits; and
- Establishing minimum flows in catchments not identified in Schedule 2A.

For many Otago water bodies, detailed information that can assist with making informed management decisions is limited. The Otago Regional Council will determine appropriate information requirements in consultation with the community and will gather such information.

The Council will establish a priority order for investigating catchments affected by water takes. These investigations will study the effects of deemed permits and other resource consents for the taking of surface water and will include an assessment of effects on native fish values. For catchments not in Schedule 2, investigations will be followed by a plan change to set a minimum flow, where environmental benefit will result. Where environmental benefit will result from applying minimum flows to only resource consents other than mining privileges in the catchment, a plan change may also occur.

The Otago Regional Council will identify water bodies with significant native fish values using the results of the research programme currently being carried out by the Department of Conservation to find water bodies which host native fish species (due for completion by the end of June 2005) and the Council's own studies.

The Council will consider all information from the suite of methods in 15.9.1, including information on economic and social effects, when making decisions concerning the future management of Otago's water resources.

The steps to be taken by the Council each year to implement these methods will be subject to the Council's Annual Plan process.

16
Information Requirements

16.1 Introduction

The Resource Management Act requires that applications for a resource consent be made in accordance with Section 88. The Resource Management Act further requires that, where an assessment of the effects of the proposed activity is required, this assessment be prepared in accordance with the Fourth Schedule of the Act.

In general, applications for resource consent for activities affecting Otago's water resources or water bodies will be required to demonstrate that:

(a) The effects of the proposed activity comply with the relevant objectives, policies and rules of this Plan;
(b) Information has been included, in accordance with the Fourth Schedule of the Resource Management Act, to enable the consent authority to make an assessment of the effects of the proposed activity; and
(c) Where practicable, consultation has occurred with parties likely to be affected by the proposed activity.

Without limiting the requirements of Section 88 of the Resource Management Act, or of the Fourth Schedule to the Act, any application for any activity which this Regional Plan: Water specifies as being:

(a) Controlled;
(b) Restricted discretionary; or
(c) Discretionary;

will be required to include information, as specified in this chapter.

Applications will also be assessed in terms of policies in the Regional Policy Statement for Otago. There may be additional information requirements once regard has been had to the Regional Policy Statement.

Pursuant to Section 88(2) of the Resource Management Act, no application shall be made for an activity that this Plan specifies as a prohibited activity once the time for making or lodging submissions or appeals against the proposed rule has expired and:

(a) No such appeals or submissions have been lodged; or
(b) All such submissions or appeals have been withdrawn or dismissed.

Applications for resource consents shall be made on the prescribed forms available from the Otago Regional Council. The detail of the environmental impact assessment should be in context with the scale of the proposed activity.

16.2 General information required

The following information must be supplied with all resource consent applications:

1. The name and address of the applicant.
2. A description of the activity, its nature, purpose and duration.
3. The location of the activity together with a site plan, legal description, and relevant map references.
4. A description of possible alternative locations or methods and the reasons for making the proposed choice.
5. The scale of the activity, including the size of the area required for the activity,

in hectares or square metres.

6. An assessment of any actual or potential effects of the activity on the environment.
7. A description of the measures to be undertaken to avoid, remedy or mitigate any effect on the environment, and the extent to which environmental compensation, if any, has already been provided with respect to the activity.
8. A list of names and addresses of landholders likely to be directly affected by the activity.
9. An identification of those persons interested in or affected by the activity, any consultation undertaken, and any response to the views of those consulted. Depending on the type of activity proposed, or its scale or location, these people may include:
   (a) Neighbouring landholders,
   (b) Local runanga and te Runanga o Ngai Tahu,
   (c) Department of Conservation,
   (d) City or district councils,
   (e) Fish and game councils,
   (f) The New Zealand Historic Places Trust,
   (g) Commercial user groups,
   (h) Recreational user groups, or
   (i) The community in general.
10. A statement of whether any other resource consent is required from any other consent authority to undertake the activity and whether any such consent has been applied for, or obtained.

16.3 Specific information requirements

In addition to the general information required by Section 16.2 above, where the proposed activity involves the following activities, the information listed will be required.

16.3.1 The taking of surface water or groundwater

1. A description of the ~~quantity,~~ rate, volume, ~~and~~ timing and frequency~~,~~ (including the 7-day take and annual or seasonal volumes)~~,~~ of the proposed take and an assessment of the need for the take.
2. A statement of the intended purpose of use for which the water is to be taken and the location~~(s)~~ where the water is to be used.
3. A description of the ~~means~~ methods of ~~the~~ take, delivery, storage (if any) and application to be used.
4. ~~With respect to an application for a new take, an~~ An assessment of the effect of the take on other users of the source water body.

4A. ~~A description of all possible sources of water, with an assessment~~ Consideration of the economic, social, environmental and cultural costs and benefits of taking from ~~each~~ the water source applied for, over other possible sources, to an extent relative to the scale of the application.

4B. A statement about how, or if, the applicant proposes to work with other water users to meet day-to-day water requirements; and whether there is a water supply scheme in the area.

4C. Evidence of the rate, volume, timing and frequency of water taken under any existing consent, over the preceding 5 years.

4D An outline of the value of the investment of the existing consent holder.

5. In the case of the taking of groundwater, a description of the bore used or to be used.

5A. In the case of the taking of groundwater, affected parties who are those taking from that aquifer, within a radius r of the proposed pumping bore as specified in Schedule 5B.

6. In the case of the taking of groundwater, a description of the likely adverse effect on the aquifer or any connected surface water body using the equations given in Schedule 5A of this Plan.

7. In the case of the taking of groundwater for irrigation purposes, a description of the quality of the groundwater where there is likely to be any adverse effect on soils.

8. In the case of any resource consent application for the taking of water under Rule 12.1.5.1 or 12.2.4.1, an assessment of the effects of the activity on:
   (a) The natural and human use values including those identified in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body.

Note: Where the Council already holds this information under the requirements of an existing consent, the applicant may provide a cross-reference to the consent number in relation to which this information is held.

Decisions: B2a, E1b, B4b, B5b, A3g, B8a, E1a

16.3.2 The damming or diversion of water

1. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body; and
   (d) Other users of any water or water body affected by the activity; and
   (e) The movement of water and sediment; and
   (f) Any defence against water; and
   (g) Adjacent land.
2. An assessment of the effect on upstream and downstream users of any affected water bodies, land or water, including any likely effect should a dam fail or be overtopped either during or after construction.
3. A description of the anticipated effect of the activity on public access to or along the water body including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and

(b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.

4. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
5. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.
6. A description of the provisions made for the remediation of any adverse effect of the failure or overtopping of the dam.
7. In the case of a dam, the intended timing and duration of the filling of any reservoir and the proposed discharges from the dam.
8. A description of the flow regime intended to be maintained in the water body downstream of the dam or diversion.
9. In the case of a diversion, the total quantity or proportion of the flow that is intended to be diverted.
10. An assessment of any known contaminated land, for example a recognised "contaminated site", that may be flooded or inundated by the damming or diversion.
11. In the case of a flood detention dam, a description of the mechanism for releasing water.

16.3.3 The discharge of water or contaminants

1. A description of the nature, method, volume, contents, rate and frequency of the proposed discharge.
2. A description of the treatment, if any, of the water or contaminant prior to the proposed discharge.
3. A description of any measures that may be in place to contain an emergency spill or discharge, should any occur.
4. An assessment of the ability of the receiving water or land to assimilate the discharge, in terms of both quantity and quality.
5. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body.
6. An assessment of the likely effect of the discharge on groundwater quality.
7. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
8. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.
9. In the case of stormwater or drainage water discharge:
   (a) A description of the nature of activities served by the system; and
   (b) Details of the design of the system, in particular its capacity, its specifications and its maintenance regime.

10. In the case of human sewage or animal waste discharge, details of the design of the system, in particular its capacity, its specifications and its maintenance regime.
11. In the case of pesticide or fertiliser discharge, details of any manufacturer's directions for handling or application.

16.3.4 The use of a structure on the bed of a lake or river

1. A description of the current legal status of the structure including compliance with any district rule or proposed district rule.
2. A description of the nature of the use and the effect this may have on the function or structural integrity of the structure.
3. A description of work to be undertaken to maintain the structure in good repair.

16.3.5 The erection, placement, extension, alteration, replacement, or reconstruction of a structure on the bed of a lake or river

1. A description of the structure's dimensions, whether existing or proposed, including an assessment of any percentage change in size of the structure.
2. The expected construction period
3. A description of the proposed method of construction including:
   (a) The material to be used to erect or place, or extend, alter, or reconstruct the structure;
   (b) The equipment to be used; and
   (c) A construction plan.
4. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body; and
   (d) The movement of water and sediment; and
   (e) Any defence against water.
5. A description of the anticipated effect of the activity on public access to or along the water body including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and
   (b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.
6. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
7. An assessment of the likely effect of any flow or sediment process operating in the area, on the structure.
8. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.
9. A description of work to be undertaken to maintain the structure in good repair.

10. In the case of the erection or placement of a structure, a description of the provisions to be made for the maintenance of fish passage.
11. In the case of extension, alteration, or reconstruction, a description of the current legal status of the structure including compliance with any district rule or proposed district rule.

16.3.6 The demolition or removal of a structure on the bed of a lake or river

1. A description of the structure to be removed including a description of its former purpose and use.
2. A description of any amenity or historic value attached to the structure to be removed.
3. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body; and
   (d) The movement of water and sediment; and
   (e) Any defence against water.
4. A description of the anticipated effect of the activity on public access to or along the water body including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and
   (b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.
5. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
6. Evidence that the existing authorised owner of the structure, if known, has given their approval to the demolition and removal.
7. A description of the extent to which all or part of the structure is to be demolished or removed.
8. A description of the methods to be used to remove the structure and the anticipated disturbance of the bed or margin resulting from that removal, and a description of the methods to be used to rectify the disturbance or rehabilitate the site.
9. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.

16.3.7 The alteration of the bed of a lake or river

1. A description of the nature, scale and frequency of the proposed bed alteration.
2. A description of the proposed method of the alteration, including a description of equipment to be used.
3. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and

(c) The amenity values supported by any affected water body; and
(d) Other users of any water or water body affected by the activity; and
(e) The movement of water and sediment; and
(f) Any defence against water; and
(g) Adjacent land.

4. A description of the anticipated effect of the activity on public access to or along the water body including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and
   (b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.
5. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
6. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.
7. In the case of the extraction of alluvium:
   (a) An assessment of the volume of material proposed to be removed, in terms of a total annual volume, and in terms of daily amounts (where applicable); and
   (b) A description of the period over which the extraction will occur, and the frequency of removal in any 12 month period; and
   (c) A description of the methods to be used to remove the material; and
   (d) An assessment of alternatives, including alternative sources of material, that have been considered to the proposed extraction and the reasons why the extraction is required in the location chosen.
8. In the case of reclamation or deposition of a substance onto or into the bed of a lake or river, a description of the composition of the material proposed to be deposited.

16.3.8 The introduction or planting of vegetation to or on the bed of a lake or river

1. The name of the plant or plants proposed to be introduced and the proposed methods to be used to introduce the plant.
2. The purpose for introducing the plant or plants.
3. A description of whether the plant or plants are already resident in the area of the proposed introduction.
4. An assessment of the effects of the activity on:
   (a) The natural and human use values set out in Schedule 1 for any affected water body; and
   (b) The natural character of any affected water body; and
   (c) The amenity values supported by any affected water body; and
   (d) Other users of any water or water body affected by the activity; and
   (e) The movement of water and sediment; and
   (f) Any defence against water; and

(g) Adjacent land.

5. A description of the anticipated effect of the activity on public access to or along the water body including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and
   (b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.
6. An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
7. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.

16.3.9 The removal of vegetation from the bed of a lake or river

1. The method of removal.

16.3.10 The construction of a groundwater bore or the drilling of land

1. A description of the nature and scale of the bore construction or drilling, including its proposed depth.
2. A statement of the purpose of the proposed bore construction or drilling activity.
3. A description of the nature of the land where the bore construction or drilling is to occur, its soils, geology, and its proximity to water including groundwater.
4. A description of the bore head or drill hole management, or other methods, to be used to prevent contamination of groundwater, or to prevent groundwater running to waste.
5. An assessment of the effects of the activity on heritage values, including those identified in Schedule 1C or in any district plan, any archaeological site, or any place with interim historic place registration.

16.3.11 Activities associated with a wetland identified in Schedule 9, or a high altitude wetland in terms of Policy 10.4.5, including taking water or discharging water or contaminants

1. The effect of the proposed activity on the wetland and the Types A and B values:
   (a) Identified in Schedule 9 of this Plan; or
   (b) Supported by the high altitude wetland in terms of Policy 10.4.5, that are present on that wetland.
2. A description of the compensatory provisions to be used in the event of any adverse effect on a Type B value.

16.3.12 Activities associated with taking or diverting water from a wetland identified in Schedule 10

1. The effect of the proposed taking or diverting on the wetland and any Type A or B values that are present on that wetland.
2. A description of the compensatory provisions to be used in the event of any adverse effect on a Type B value.

16.3.13 The erection, placement, extension, alteration, replacement, reconstruction, demolition or removal of a defence against water

1. A description of the defence against water's dimensions, whether existing or proposed, including an assessment of any percentage change in size of the defence against water.
2. The expected construction period.
3. A description of the proposed method of construction including:
   (a) The material to be used to erect, or place, or extend, or alter, or replace, or reconstruct, the defence against water; and
   (b) The equipment to be used; and
   (c) A construction plan.
4. An assessment of the effects of the activity on:
   (a) Any waahi tapu, waahi taoka, or other site of significance to Kai Tahu including values in Schedule 1; and
   (b) Any affected water body including values in Schedule 1; and
   (c) The natural character of any affected lake, river or its margins, including values in Schedule 1, and any wetland; and
   (d) Any heritage value including values in Schedule 1; and
   (e) Any amenity value; and
   (f) The movement of water and sediment; and
   (g) Any defence against water.
5. A description of the anticipated effect of the activity on public access including a description of:
   (a) The extent to which members of the public would be excluded or restricted from the area; and
   (b) Where existing public access would be excluded or restricted as a result of the activity, a description of the methods, if any, proposed to bring about enhanced access in the area or elsewhere.
6. An assessment of the effect of the activity on any natural hazard including flooding, and the extent to which it is likely to create or exacerbate a natural hazard.
7. An assessment of the likely effect of any flow or sediment process operating in the area, on the defence against water.
8. A description of work to be undertaken to maintain the defence against water in good repair.
9. A description of the intended purpose and action of the defence against water in flood circumstances.
10. In the case of extension, alteration, replacement, or reconstruction, a description of the current legal status of the defence against water including compliance with any district rule or proposed district rule.

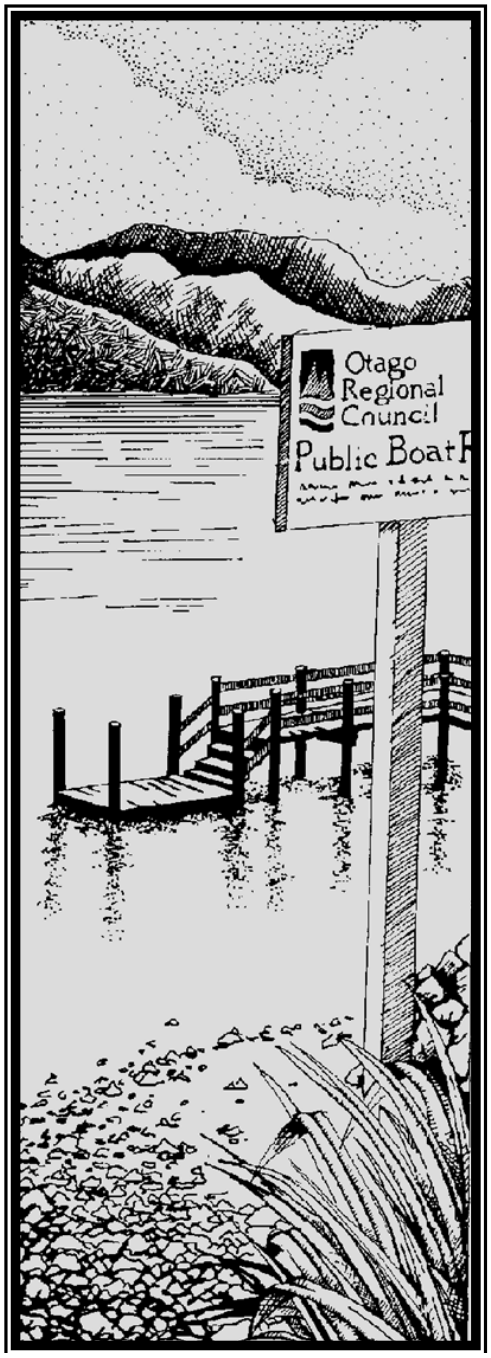
11. In the case of demolition or removal, evidence that the existing authorised owner of the defence against water, if known, has given their approval to the demolition.
12. In the case of demolition or removal, a description of the extent to which all or part of the defence against water is to be demolished or removed.
13. In the case of demolition or removal, a description of the methods to be used to remove the defence against water and the anticipated disturbance of the bed or margin of any water body resulting from that removal, and a description of the methods to be used to rectify the disturbance or rehabilitate the site.

16.4 Provision of further information

Pursuant to Section 92 of the Resource Management Act, the Otago Regional Council may at any reasonable time before the hearing of a resource consent application, by written notice to an applicant, require further information. The variable nature and site specific aspects of activities within Otago's water bodies make it difficult to define all of the required information without closer investigation of each application. Accordingly, the applicant may be required to supply further information where it is necessary to enable the Otago Regional Council to better understand the nature of the proposed activity, the effect it will have on the environment, or how the adverse effects may be avoided, remedied or mitigated.

17

Financial Contributions



17.1 Introduction

Where the Otago Regional Council grants a resource consent under the rules in this Plan for diversions, reclamations or dams, and for activities that adversely affect Type B Wetland values, it may impose a condition requiring that a financial contribution be made for the purposes specified in this chapter of the Plan.

The term "financial contribution" is defined in Section 108(9) of the Resource Management Act as a contribution of:

(a) Money; or
(b) Land, including an esplanade reserve or esplanade strip (other than in relation to a subdivision consent), but excluding Maori land within the meaning of the Maori Land Act 1993 unless that Act provides otherwise; or
(c) A combination of money and land.

Policies 6.5.6, 8.4.2 and 10.4.4 of the Plan outline the activities for which a financial contribution, or for which works or services, may be required.

Policies 6.5.6 and 8.4.2 require financial contributions, or works or services, for activities involving the diversion of water, reclamation or damming, to offset, remedy or mitigate unavoidable adverse effects on:
(a) Any natural or human use value identified in Schedule 1;
(b) The natural character of the water body;
(c) Any amenity value supported by the water body; or
(d) Any heritage value associated with any affected water body.

Policy 10.4.4 requires financial contributions, or works or services, to offset the adverse effects of activities on Type B wetland values identified in Schedule 9, or hydrological values.

Works and services apply to remediation or mitigation activities, while financial contributions may apply to the offsetting of adverse effects that cannot be fully avoided or completely remedied or, in the Council's opinion, adequately mitigated.

Financial contributions may be for various purposes including ensuring positive effects on the environment to offset any adverse effects. The provisions which follow are intended to reflect the requirements of Section 108(9) of the Resource Management Act and Clause 5 of Part 1 of the Second Schedule of the Act, and set out:
1. The circumstances when such contributions may be imposed;
2. The purposes for which such contributions may be required and used;
3. The manner in which the level of the contribution will be determined.

In addition to these matters, the chapter also specifies the assessment criteria to which the Council will have regard when deciding whether to impose a financial contribution, the type and amount of any such contribution, and the general provisions that would apply.

In deciding on any financial contribution, the Otago Regional Council will take into account that requiring a contribution may not be appropriate in every case, even where there are adverse effects. Every resource consent application needs to be considered on a case by case basis as to the nature and extent of any contribution that may be required. The Otago Regional Council does not intend that environmental effects should be "fully mitigated" or fully compensated in every case. The actual amount of particular contributions will vary depending upon the circumstances.

In considering the use to which financial contributions may be put, the Otago Regional Council may consult special interest groups as it considers appropriate.

17.2 Circumstances, purpose and method of determining contribution amount

A financial contribution condition may be imposed on any resource consent in the circumstances and for the purposes set out below. Contributions may be in the form of land or money or a combination of these. Contributions of money to the Council must be used for the general purpose for which such contributions were taken.

The following provisions set out circumstances and purposes for which financial contributions may be imposed and used, and the method of determining the level of the contribution in each case.

17.2.1 To enable legal public access to and along the margins of lakes and rivers

Circumstances: Where legal public access to or along lake or river margins will be restricted by the activity for which a resource consent is granted, and the effects cannot be avoided.

Purposes: To offset such effects by providing money, land, or a combination of both for alternative legal public access.

Method of determining contribution amount:
The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual cost of providing legal public access sufficient to offset adverse effects on such access.

17.2.2 To enhance amenity values on the margins of lakes and rivers

Circumstances: Where the activity, for which a resource consent is granted, occupies or adversely affects any part of a lake or river margin which contains facilities or space used by the public, and the effects cannot be avoided.

Purposes: To offset such effects by providing money, land, or a combination of both for public open space or public facilities at an alternative location within the lake or river margins, in the same general locality or serving the same general community (including a contribution to any public reserves).

Method of determining contribution amount:
The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual cost of providing land to provide public open space or public facilities of a reasonably equivalent standard or extent to those which are adversely affected by the granting of the resource consent.

17.2.3 To maintain or enhance riparian vegetation or riparian habitat

Circumstances: Where the activity for which a resource consent is granted will, or is likely to, result in destruction or damage to riparian vegetation or habitats, and the effects cannot be avoided.

Purposes: To offset the loss of vegetation by providing money, land, or a combination of both to plant, transplant or maintain, new or existing vegetation elsewhere in the same general locality.

Method of determining contribution amount:
The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual costs of the works and of providing land to provide for planting, transplanting or maintaining new or existing vegetation.

17.2.4 To enable landscaping or planting

Circumstances: Where the activity for which a resource consent is granted is likely to cause or contribute to adverse effects on the natural character of the lake or river, or the amenity values supported by it, and the effects cannot be avoided.

Purposes: To offset the adverse effects of land clearance, land disturbance and structures in a lake or river or its marginal area by providing money, land, or a combination of both for the purposes of landscaping or planting elsewhere in the same general locality.

Method of determining contribution amount:

The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual costs of carrying out such works and of providing land sufficient to offset the adverse effects of the activity.

17.2.5 To protect the bed of a lake or river or its margins

Circumstances: Where the activity for which a resource consent is granted will, or is likely to, contribute to adverse effects on the bed or margins of a lake or river, and the effects cannot be avoided.

Purposes: To offset such effects by providing money, land, or a combination of both for works which protect the bed or margin of a lake or river, including maintenance and planting of vegetation, such as riparian protection and erosion protection works in the same general locality.

Method of determining contribution amount:

The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual cost of works reasonably required to offset or reasonably compensate for such effects.

17.2.6 To protect, maintain or restore sites, buildings, places or areas of historic or cultural importance

Circumstances: Where the activity for which consent is granted will adversely affect a historic site, building, place or area or one of cultural or spiritual significance to Kai Tahu, in the bed of a lake or river, and the effects cannot be avoided.

Purposes: To offset such effects by providing money, land, or a combination of both for contributing to protection, maintenance or restoration of some alternative historic or cultural site elsewhere within lake or river margins in the same general locality.

Method of determining contribution amount:

The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual cost of works and of purchasing land reasonably required to offset such effects.

17.2.7 To protect aquatic ecosystems or their habitat

Circumstances: Where the activity for which a resource consent is granted is likely to cause or contribute to adverse effects on any ecosystem values, particularly those identified in Schedule 1A of this Plan, and the effects cannot be avoided.

Purposes: To offset the adverse effects of the activity by providing money, land, or a combination of both to protect ecosystem values or habitats beyond the area occupied by, or immediately affected by, the activity.

Method of determining contribution amount:
The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual costs of works and of providing land sufficient to offset such effects.

17.2.8 To improve, create or reinstate wetland habitat, or offset adverse effects on the hydrological values of a wetland

Circumstances: Where the activity for which consent is granted will adversely affect any Type B wetland value and the effects cannot be avoided.

Purposes: To offset the effects of the activity by providing money, land or a combination of both, to improve, create or reinstate wetland habitat, or by making alternative provision for hydrological value lost, beyond the area occupied by or immediately affected by the activity.

Method of determining contribution amount:
The amount of the contribution will be determined having regard to the criteria set out in 17.3, but will reflect the actual costs of works and of providing land sufficient to offset such effects.

17.3 Financial contribution assessment criteria

17.3.1 In deciding whether or not to impose financial contributions and the types of contributions, the Otago Regional Council will have particular regard to the following matters:

1. The extent to which any unavoidable adverse effect resulting from the activity can and should be remedied or mitigated; and

2. The extent to which the applicant has made, or has undertaken to make, some form of compensation for such unavoidable adverse effect; and
3. The extent to which a financial contribution may offset any unavoidable adverse effect caused by or contributed to by the activity; and
4. The extent to which a contribution is required to achieve objectives and policies of this Plan; and
5. The extent to which a financial contribution can be applied as close as possible to the site where the adverse effects occur or, where this is not practicable, the extent to which those people or communities most directly affected can benefit from the positive environmental effects that result from the financial contribution; and
6. The reasonableness of the contribution and consistency with the purposes of the Resource Management Act; and
7. Any other financial contribution required by any other statutory authority with respect to that activity and the extent to which financial contributions have previously been made or facilities have been provided.

17.3.2 In deciding the actual value of the financial contribution required, the Otago Regional Council will have particular regard to:

1. The significance of the effects attributable to the activity;
2. Where such effects are contributed to by other activities, the extent to which those effects can be reasonably attributed to the activity for which consent is granted; and
3. The extent to which any positive effects of the activity offset any adverse effects; including facilities already provided.

17.3.3 In imposing a financial contribution the following general provisions will apply:

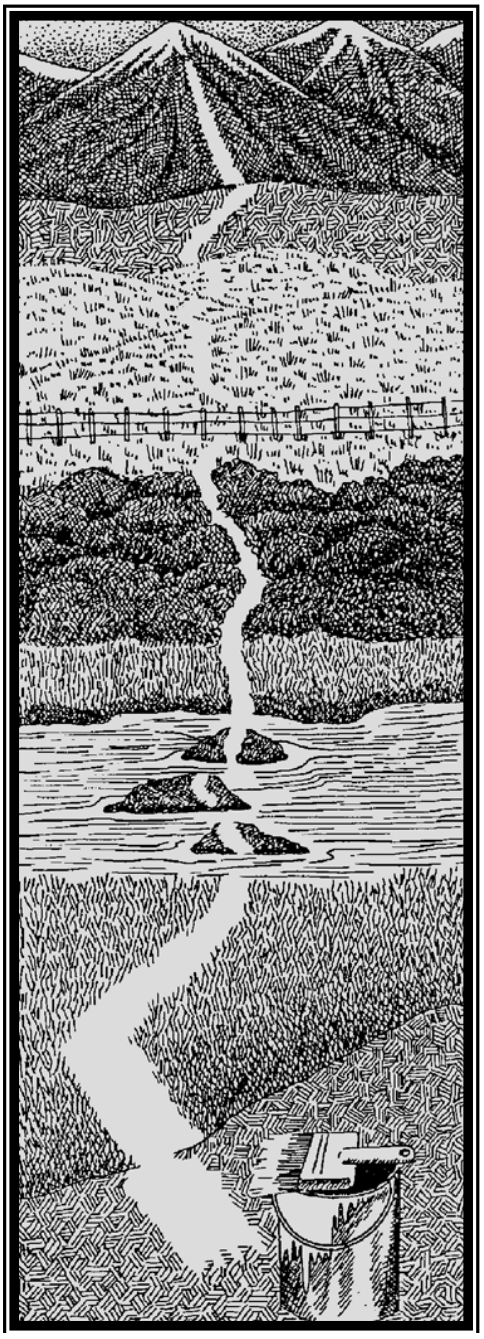
1. All financial contributions shall be GST inclusive.
2. Where the financial contribution is, or includes, a payment of money, the Council may specify in the condition:
   (a) The amount to be paid by the consent holder or the methods by which the amount of the payment shall be determined;
   (b) How payment is to be made, including whether payment is to be made by instalments;
   (c) When payment shall be made;
   (d) Whether the amount of the payment is to bear interest and, if so, the rate of interest;
   (e) If the amount of the payment is to be adjusted to take account of inflation and, if so, how the amount is to be adjusted;
   (f) Whether any penalty is to be imposed for default in payment and, if so, the amount of the penalty or formula by which the penalty is to be calculated.
3. Where the financial contribution is, or includes, land, the value of the land shall be determined by the Council. In granting a consent the

Council shall give reasons in its decision for its assessment of the value of the land.

4. Where the financial contribution is, or includes, land the Council may specify:
   (a) The location and the area of the land;
   (b) When and how the land is to be transferred to, or vested in, the Council.

18

Cross Boundary Issues



18.1 Introduction

An activity which makes use of Otago's water resources can create an adverse effect on adjacent areas outside the immediate vicinity of the activity. Where that impact occurs on the water resource, the provisions of this Regional Plan: Water will apply to ensure an integrated and coordinated approach is taken.

However, some activities associated with the discharge of contaminants, the taking of water, the use of the beds and margins of a water body, the use or development of a wetland or the use of groundwater have the potential to create adverse effects on land areas. These adverse effects include the possible loss of the natural character of an area or the acceleration of naturally occurring erosion.

In a similar way, the effects of activities occurring outside of the water resource can adversely affect the water resource, particularly in terms of water quality and quantity. Land use activities can, amongst other things, result in increased sedimentation, nutrient runoff and a reduction in flows.

Where the adverse effects of an activity occur in an area under the management of another agency, administrative processes are required to ensure that the cross-boundary nature of the effect is considered, and where necessary taken into account by the agency responsible for the management of that resource. Establishing processes between local authorities in order to deal with those cross-boundary issues is required.

It is important that the cross-boundary issues are identified, agreed to and are dealt with in an efficient and effective manner in order that any adverse effects of those issues are avoided, remedied or mitigated.

18.2 Methods

In order to deal with cross-boundary issues as they arise, the Otago Regional Council will use the following methods:

18.2.1 To liaise with adjacent regional councils over issues of concern related to the management of the water resource.

18.2.2 To promote and encourage the development of protocols with adjacent territorial local authorities and regional councils for resolving cross-boundary issues.

18.2.3 To consult with all agencies having responsibilities for the sustainable management of aspects of Otago's environment.

18.2.4 To promote and encourage joint working groups, joint council committees and other joint approaches between appropriate territorial local authorities and regional councils to consider cross-boundary issues.

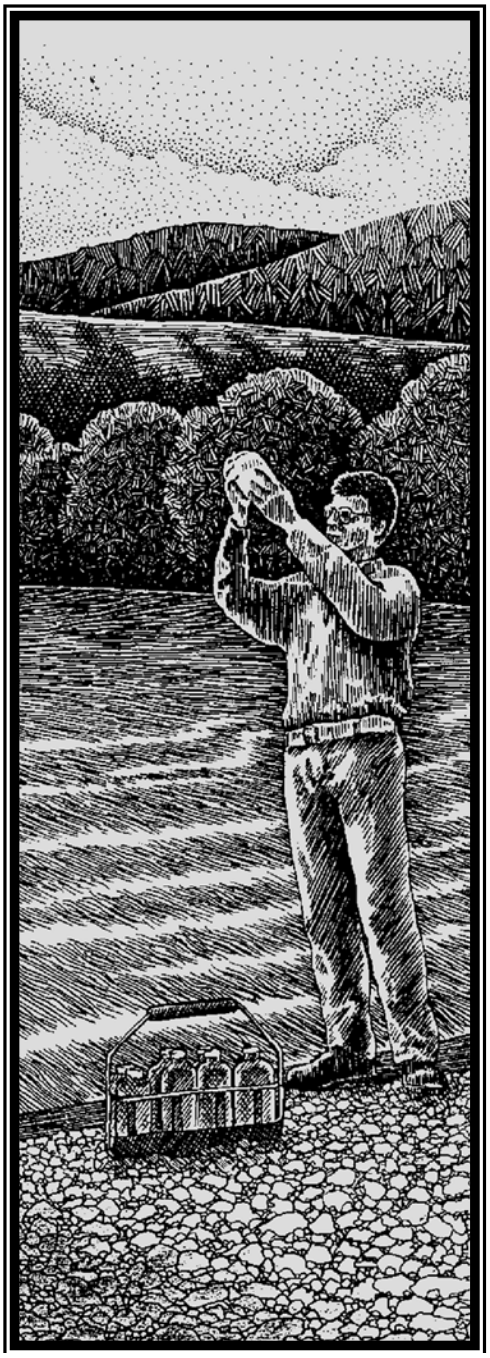
18.2.5 To combine with appropriate territorial local authorities and regional councils in jointly processing resource consent applications that cross administrative boundaries.

Explanation and principal reasons for adopting

Processes to resolve cross-boundary issues will be based on consultation and communication between Otago's local authorities and with adjacent local authorities. Various approaches employing joint groups, committees or other means can be used to facilitate the consideration and decision-making between different authorities over issues that cross their boundaries.

19

Monitoring and Review



19.1 Introduction

The Resource Management Act 1991 requires the Otago Regional Council to gather information and to undertake or commission such research as is necessary to carry out effectively their functions under the Resource Management Act (Section 35(1)). Section 35(2) of the Resource Management Act also requires that the Otago Regional Council monitor:

(a) The state of the regional environment to the extent that is appropriate to enable the Council to effectively carry out its functions (baseline monitoring or environmental monitoring);
(b) The suitability and effectiveness of any policy statement or plan, or proposed policy statement or plan for the region, and the exercise of any functions, powers or duties delegated or transferred by it (process monitoring); and
(c) Compliance of resource consents (compliance monitoring).

This monitoring will be undertaken in terms of the framework set out in the Regional Policy Statement for Otago.

19.2 Elements to be monitored

Subject to the requirements of the Regional Policy Statement for Otago and the provisions of its Annual Plan, the Otago Regional Council will monitor the elements of Otago's water resources, and the effects of their use and development on the environment, as necessary to assess the suitability and effectiveness of the objectives and policies within this Plan. A regional monitoring strategy will be prepared, that is implemented in detail through the Annual Plan. In considering the elements requiring monitoring, the Otago Regional Council will have particular regard to the anticipated environmental results identified in Chapters 5 to 10 of this Plan.

19.3 Monitoring techniques

In monitoring elements of Otago's water resources necessary to determine the suitability and effectiveness of the objectives and policies within this Regional Plan: Water, the following techniques may be used:

1. Analysis of feedback, compliments, complaints received and responses to complaints.
2. Water levels and flows, and water use surveys, pertaining to Otago's surface and groundwater resources.
3. Water quality surveys, incorporating both chemical and biological monitoring methods.
4. Requiring self-monitoring of consents, where necessary, and the provision of the collected information to the Otago Regional Council for audit.
5. Compliance audit monitoring, at appropriate intervals, to ensure the conditions on resource consents are being adhered to.
6. Maintaining a database of resource consents issued.
7. Commission research, as necessary, to provide additional information on the environment of water bodies.
8. Where appropriate, develop and implement joint initiatives with other local authorities, government departments, Kai Tahu, water user groups, land care

groups and other agencies to monitor key aspects of Otago's water body environment.

9. Make available data held by the Otago Regional Council and seek the transfer between agencies and territorial local authorities of information on Otago's water resources.

19.4 Review

This Regional Plan: Water could be in force for a period no longer than 10 years, unless reviewed earlier. Any such review will be carried out in accordance with the First Schedule of the Resource Management Act. In considering the need to review this Plan, the Otago Regional Council will have regard to the extent to which any of the following matters affect the framework established by, and the contents of, the Plan:

1. Changes in legislation dealing with any aspect of the management of water and water bodies.
2. Improved knowledge and understanding of Otago's water resources.
3. Issues identified by the monitoring of the suitability and effectiveness of the objectives and policies within this Regional Plan: Water.
4. The development, implementation and review of the Regional Policy Statement and other regional plans by the Otago Regional Council.
5. The development, implementation and review of district plans by Otago's territorial local authorities.
6. Requests for a plan change or review made by any person in accordance with Part II of the First Schedule of the Resource Management Act.