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 community water supply, stock drinking water, irrigation, hydro-electric power generation and industrial supply. This chapter addresses resource use conflicts related to the quantity of water in lakes, 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. Conflicts arise when demand to take, dam or divert water affects other resource consent holders, instream values, groundwater systems, and recreation and other 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). 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 deemed permits in respect of water.

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. 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.

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 The taking of water from 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 compaction.

Explanation
When groundwater is taken for consumptive use from the aquifer in quantities greater than it is being replaced by aquifer recharge, long term and potentially irreversible adverse effects can occur.

6.2.2 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

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

(a) Inefficient or inappropriate practices; and

(b) Consent holders retaining authorisation for more water than is actually required for their purpose of use.

Explanation
Wider use of the water is constrained by water shortages. The effects of water shortages can be exacerbated when practices are inefficient or inappropriate. For example, the following may be inefficient or inappropriate:

(a) Water being lost from distribution systems;

(b) Not utilising the most efficient means of taking or using the water;

(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.

6.2.4 The rate, volume, timing and frequency at which water is taken can affect lawful activities.

Explanation
The rate, volume, timing and frequency 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. The rate and volume of taking can mean that there is less water available for those taking water downstream, 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. The timing and frequency of taking can alter the extent of the adverse effect because the value

of water to downstream users can vary at different times. For example, water used for the generation of hydro-electric power is generally valued most highly during mid to late autumn and winter, and it has greater value for primary production from spring to autumn than in winter. In addition, takes that individually might not have a material adverse effect on downstream users can have a cumulative adverse effect. Where the ability of existing users to access water is adversely affected 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.

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.

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 To maintain long term groundwater levels and water storage in Otago's aquifers.

Explanation
The levels and pressures of groundwater 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.

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

6.3.7 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

All water takes	
6.4.11	Suspension of takes — by allocation type or aquifer level
6.4.12	Water allocation committees
6.4.12A	Water management groups
6.4.12B	Water rationing options
6.4.12C	Consent condition for water rationing
6.4.13	Restriction of takes by Council approved rationing regime
6.4.14	Exception to minimum flow — flow augmentation
6.4.16	Measurement of takes
6.4.17	Consent transfers retaining allocation status
6.4.18	Cancellation of unused consents
6.4.19	Duration of consent

Integrated Water Management

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.

6.4.0A To ensure that the quantity of water granted to take is no more than that required for the purpose of use 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 purpose of use of the water taken must be reflected in any consent 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. To the extent the consent holder does not use water gained by such efficiencies, there may be instream benefits.

Principal reason for adopting
This policy is adopted to ensure that wastage is avoided when water is granted to any use under a resource consent. This will enable more people to benefit from water available for use.

6.4.0B To promote and support 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.

6.4.0C To promote and give preference, as between alternative sources, to the take and use of water from the nearest practicable source.

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 nearest practicable given the proposed location of use, include:

- Whether the take and use of that water is an efficient use of the water resource.
- Whether another source of water is practically available and accessible.
- An overview of the economic, social, environmental and cultural effects of taking from the water source applied for compared to taking water from other sources.

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.

Surface Water Takes and Connected Groundwater Takes

6.4.1 To enable the taking of surface water, by:

(a) Defined allocation quantities; and

(b) Provision for water body levels and 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, and subject to suspension of takes when specified levels and flows for the water body are reached.

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.

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 rate, volume, timing and frequency, where appropriate, are addressed through objectives and policies in both Chapters 5 and 6.

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 users' access to surface water and connected groundwater while sustaining instream values.

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. Some aquifers are

identified on the C-series maps. Where the maps show aquifers overlapping, the Council will identify which aquifer the groundwater is to be taken from (e.g. from borelogs or water chemistry analyses).

(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.

6.4.2 To define the primary allocation limit for each catchment, from which surface water takes and connected groundwater takes may be granted, as the greater of:

(a) That specified in Schedule 2A, but where no limit is specified in Schedule 2A, 50% of the 7-day mean annual low flow; or

(b) The sum of consented maximum instantaneous, or consented 7-day, takes of:

(i) Surface water as at:

(1) 19 February 2005 in the Welcome Creek catchment; or

(2) 7 July 2000 in the Waianakarua catchment; or

(3) 28 February 1998 in any other catchment; and

(ii) Connected groundwater as at 10 April 2010,

less any quantity in a consent where:

(1) In a catchment in Schedule 2A, the consent has a minimum flow that was set higher than that required by Schedule 2A.

(2) All of the water taken is immediately returned to the source water body.

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

(4) 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.

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 consented 7-day take is 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. Once calculated by the Council the value of 50% of the 7-day mean annual low flow is fixed for a catchment.

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 in Schedule 2A, water can be allocated as primary allocation under this policy until the Schedule 2A limit is reached; or

  (ii) If the sum of quantities in consented takes exceeds the primary allocation limit set in Schedule 2A, no further primary allocation is available until the sum is less than the Schedule 2A limit. 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 sum of quantities in consented takes exceeds 50% MALF, no further primary allocation is available until the sum is less than 50% MALF. 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.

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 (b) 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 (b) 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.

6.4.2A Where an application is received to take water and Policy 6.4.2(b) applies to the catchment, to grant from within primary allocation no more water than has been taken under the existing consent in at least 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 ensure that any new consent granted reflects the pattern of taking established under the existing consent, and to minimise conflict between those taking water. 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, is intended to improve water resource efficiency by reducing unutilised consented primary allocation over time, which will also enable lowering of supplementary minimum flows.

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.

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.

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 water from within the Taieri above Paerau and between Sutton and Outram, Welcome Creek, Shag, Kakanui, Water of Leith, Lake Hayes, Waitahuna, Trotters, Waianakarua, Pomahaka, Waiwera 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 water from the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and the Taieri catchment areas Paerau to Waipiata, Waipiata to Tiroiti and Tiroiti 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 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 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 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 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
Other methods: 15.9.1.3, 15.9.1.4

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.

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.

Rules: 12.1.3.1, 12.1.4.2 to 12.1.5.1

6.4.8 Minimum flows required by Policies 6.4.1A, 6.4.3, 6.4.4 or 6.4.6 will not apply to community water supply takes identified in Schedule 1B or 3B.

Explanation
This policy exempts scheduled community water supplies from restriction in terms of the minimum flow requirements of Policies 6.4.1A, 6.4.3, 6.4.4 and 6.4.6.

Community water supply takes beyond primary allocation will be subject to Policy 6.4.9 or 6.4.10 to maintain aquatic ecosystem values.

Principal reasons for adopting
This policy is adopted to enable continued unrestricted operation of Schedule 1B and 3B 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.

Rules: 12.1.3.1 and 12.2.2A.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) Supplementary allocations and associated minimum flows for 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 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.

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 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 will be considered as a full discretionary activity or, for the Waitaki Catchment only, a non-complying activity in terms of this Plan.

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.

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 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

Groundwater Takes

6.4.10A *[Repealed – 1 September 2015]*

6.4.10A1 Enable the taking of water allocated as groundwater by Policy 6.4.1A, by:

- **(a) Determining the volume available for taking as the maximum allocation limit less the assessed maximum annual take for an aquifer calculated using Method 15.8.3.1; and**
- **(b) Applying aquifer restrictions where specified in Schedule 4B.**

6.4.10A2 Define the maximum allocation limit for an aquifer as:

- **(a) That specified in Schedule 4A; or**
- **(b) For aquifers not in Schedule 4A, 50% of the mean annual recharge calculated under Schedule 4D.**

6.4.10A3 For any aquifer, avoid allocating beyond the maximum allocation limit, unless the water:

- **(a) Is for a non-consumptive take; or**
- **(b) Has been previously taken under a resource consent; or**
- **(c) Is for a new, consumptive take of a temporary nature that is necessary for construction or repair of a structure; or**
- **(d) Is in a rock formation having an average hydraulic conductivity of less than 1×10^{-5} metres per second, which is not an aquifer mapped in the C-series of this Plan, and is taken in connection with mineral extraction activities.**

6.4.10A4 Where an application is received to take groundwater by a person who already holds a resource consent to take that water, grant no more water than has been taken under the existing consent, in at least the preceding five years, when:

- **(a) The take is from an aquifer where the assessed maximum annual take exceeds its maximum allocation limit; or**
- **(b) The take results in the assessed maximum annual take of an aquifer exceeding its maximum allocation limit,**

except in the case of a registered community drinking water supply where an allowance may be made for growth that is reasonably anticipated.

6.4.10A5 In managing the taking of groundwater, avoid in any aquifer:

- **(a) Contamination of groundwater or surface water; and**
- **(b) Permanent aquifer compaction.**

6.4.10AA *[Repealed – 1 September 2015]*

6.4.10AB To define restrictions where needed to protect aquifer properties and water storage.

Explanation
Groundwater restriction levels can be useful for protecting an aquifer from over-depletion due to extended periods of low recharge, or in managing localised areas of high demand. They can assist in avoiding land subsidence, aquifer compression, reduced outflows to surface water, and sustaining the life supporting capacity of the aquifer. Near the coast or contaminated sites restrictions can minimise the potential for water quality effects by intrusion.

Restrictions are listed in Schedule 4B, and new aquifers may be added to the schedule using the plan change process.

Schedule 4C.2 provides detail of the matters that may be considered when setting restriction levels.

Principal reasons for adopting
This policy is adopted to enable the taking of groundwater while assisting to maintain groundwater levels and water storage, water quality, aquifer interaction with other water bodies, and avoiding aquifer compression

6.4.10AC To avoid aquifer contamination by:

(a) Recognising contaminated sites;

(b) Identifying areas vulnerable to seawater intrusion;

(c) Setting maximum allocation limits;

(d) Setting aquifer restriction levels;

(e) Restricting takes; and

(f) Requiring monitoring of groundwater quality and levels.

Explanation
Lowering groundwater levels through takes near contaminated sites can result in contamination spreading into the aquifer. When groundwater levels are lowered near the coast seawater can intrude inland, and where aquifers are known to be at risk they are identified as "seawater intrusion risk zones" on the C-series maps, however all groundwater takes near the coast present some risk.

The maximum allocation limit in Schedule 4A is set to reflect the water from recharge that is available for taking, while avoiding risk of contamination.

Where there is risk of aquifer contamination, a consent holder may be required to monitor groundwater quality and groundwater levels, and the rate, volume, timing and frequency of take may be restricted, to control the degree to which groundwater levels are lowered.

Principal reasons for adopting
This policy is adopted to avoid seawater intrusion into aquifers near the coast, or migration of contaminants from contaminated sites, as a result of taking groundwater. If contaminated, the aquifer's range of uses would be restricted.

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.

6.4.10C To require appropriate siting, construction and operation of new groundwater bores, to maintain artesian pressure in confined conditions and to promote such management for existing bores.

Explanation
Bores may be located, constructed or operated in a manner that allows 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. Therefore, new bores must be adequately sealed to maintain artesian pressure.

The opportunity to upgrade existing bores that allow loss of artesian pressure 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 pressures within an aquifer so that the aquifer can support present and future uses. It is also adopted to avoid localised adverse effects on other groundwater users.

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. Maps C24 and C25 show the location of the Lower Taieri Aquifer. Maps C15 and C17 show 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.

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. Maps C24 and C25 show the location of the Lower Taieri Aquifer. Maps C15 and C17 show 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.

All Water Takes

6.4.11 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 Council's "Water Info" telephone service. Where no access to low flow information is available directly by that telephone service, then the 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, all takes that are subject to that restriction level shall cease taking. The levels are monitored from monitoring bores, identified in the Maps D1 – D4. The Council will notify those taking groundwater under 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 Council may, by public notice, also suspend the taking of water under permitted activity Rules 12.1.2.4, 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 also ensures the taking of groundwater will be suspended in order to protect aquifers and their recognised uses (identified in Schedule 3).

6.4.12 To promote, establish and support appropriate water allocation committees to assist in the management of water rationing and monitoring during periods of water shortage.

Explanation
Water allocation committees can assist the Council to manage the region's water resources when 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 rationing regime. The 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 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.

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 6.4.10A4 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.

6.4.12B To manage water rationing amongst water takes, Council may either:

(a) Support establishment of a water management group; or

(b) Establish a water allocation committee.

Council may also instigate its own water rationing regime or issue a water shortage direction.

6.4.12C Where appropriate, to include in water permits to take water a condition that consent holders comply with any Council approved rationing regime.

6.4.13 To restrict the taking of water in accordance with any Council approved rationing regime.

Explanation
This Policy provides for the restriction of water takes in accordance with the requirements of any Council approved rationing regime.

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, which should exclude consents where the take has no effect on water availability by reason of a matching discharge immediately downstream of the point of take;
- The flow at which the regime will commence; and
- A description of how the regime will be applied.

In approving a rationing regime, Council will consider the effects of and on water takes not covered by the regime.

Where a water management group intends that rationing is to be enforced, it must be party to an approved rationing regime.

Principal reasons for adopting
This policy is adopted to enable the fair sharing of water under low flow conditions, and to assist in delaying the wider suspension of takes.

6.4.14 Other than as may be provided for by Policies 6.5.5, 8.4.2 and 10.4.2A, 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 10.4.2A, 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 *[Repealed – 1 March 2012]*

6.4.16 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), 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.

6.4.17 To approve an application to transfer a 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 transfer is 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 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 the whole or any part of a consent holder's interest in a consent for the taking and use of water 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 Council. This policy sets out the requirements for the transfer of consent holders' interests in consents to take and use water to be approved by the Council. The explanation to Policy 6.4.0A 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.

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 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
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. 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.

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.

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.

6.4.20 *[Repealed – 1 March 2012]*

6.4.21 *[Repealed –1 March 2012]*

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.B.3.1, 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.

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, 10.4.2A

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, industrial and commercial users 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.

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.

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) (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: 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.1A.2, 12.1.1A.3, 12.2.4.1, 12.2.1A.2, 12.3.3.1, 12.3.4.1, 12.3.1A.2, 12.3.1A.3
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 objectives 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.

Objectives: 7.A.1, 7.A.2, 7.A.3
Rules: 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.1A.2, 12.1.1A.3, 12.2.4.1, 12.2.1A.2, 12.3.3.1, 12.3.4.1, 12.3.1A.2, 12.3.1A.3
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: 12.1.4.5, 12.1.4.6, 12.1.4.7, 12.1.4.8, 12.1.1A.2, 12.1.1A.3, 12.2.4.1, 12.2.1A.2, 12.3.3.1, 12.3.4.1, 12.3.1A.2, 12.3.1A.3
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 water for 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: 12.1.4.7, 12.1.4.8, 12.1.1A.3, 12.3.1A.3
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 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 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.