Clarifying Residual Flows; developing a change to the Regional Plan: Water for Otago

# **Current Plan Provisions**

This table outlines the current parts of the Water Plan that relate to considering whether a flow of water is needed to remain in a water body (residual flows), when applying for a water permit.

The provisions that directly relate to assessing whether a residual flow is needed are identified in green.

The provisions that relate to assessing whether a flow of water needs to remain for other permitted and consented users are identified in blue.

The provisions that relate to ensuring natural and human use values are maintained or enhanced in any activity involving surface water, groundwater or the bed or margin of any lake or river are identified in orange.

# **Policy 5.4.2**

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

- (1) Adverse effects on:
- (a) Natural values identified in Schedule 1A;
- (b) Water supply values identified in Schedule 1B;(c) Registered historic places identified in Schedule 1C, or
- archaeological sites in, on, under or over the bed or margin of a lake or river; (d) Spiritual and cultural beliefs, values and uses of significance to Kai Tahu
- identified in Schedule 1D; (e) The natural character of any lake or river, or its margins;
- (f) Amenity values supported by any water body; and (2) Causing or exacerbating flooding, erosion, land instability, sedimentation or property damage.

#### Explanation

The natural and human use values of Otago's lakes and rivers can be adversely affected by the following activities:

- (a) Taking, damming and diversion of surface water;
- (b) Taking of groundwater where there is a close connection to surface water;
- (c) Discharges to water, and to land in circumstances which may result in a contaminant entering water;
- (d) Activities in, on, under or over the bed or margins of lakes or rivers.

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

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

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

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

#### Principal reasons for adopting

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

# **Policy 5.4.3**

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

(a) Existing lawful uses; and

(b) Existing lawful priorities for the use,

of lakes and rivers and their

## Explanation

The existing lawful uses of Otago's lakes and rivers and their margins can be adversely affected by the following activities:

- (a) Taking, damming and diversion of surface water;
- (b) Taking of groundwater (where there is a close connection to surface water);
- (c) Discharges to water, and to land in circumstances which may result in a contaminant entering water; and
- (d) Activities in, on, under or over the bed or margins of lakes or rivers.

When considering these activities, regard must be had to avoiding adverse effects on existing lawful uses of Otago's lakes and rivers and their margins. The avoidance of adverse effects on



# margins.

existing lawful uses will be sought in the first instance. Where adverse effects are considered to be unavoidable, a resource consent may be declined or, if granted, be subject to conditions requiring the adverse effects be remedied or mitigated.

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

# Principal reasons for adopting

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

# **Policy 6.3.3**

To minimise conflict among those taking water

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.

# **Policy 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.

# **Policy 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

#### **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.



ecosystems and the natural character of the source water body.

#### 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.

# **Policy 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.

# **Rule 12.1.3**

**Controlled activity: Consent required but always granted** Unless covered by Rule 12.1.1A.1, the taking and use of surface water for community water supply, up to any volume or rate authorised as at 28 February 1998, by any take identified in Schedule 1B is a *controlled* activity.

In granting any resource consent for the taking and use of surface water in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) Any need for a residual flow at the point of take; and
- (b) Any need to prevent fish entering the intake; and
- (c) The rate, volume, timing and frequency of the water to be taken and used; and
- (d) The quantity of water required to meet the needs of the community; and
- (e) The proposed method of take and delivery of the water taken; and
- (f) The duration of the resource consent: and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent; and
- (j) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value.
- The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

## Rule 12.1.4.8

Restricted discretionary activity considerations

In considering any resource consent for the taking and use of water in terms of Rules 12.1.4.2 to 12.1.4.7 and 12.2.3.1A, the Otago Regional Council will restrict the exercise of its discretion to the following:

- (i) The primary and supplementary allocation limits for the catchment; and
- (iii) Whether the proposed take is primary or supplementary allocation for the catchment; and
- (iii) The rate, volume, timing and frequency of water to be taken and used; and
- (iv) The proposed methods of take, delivery and application of the water taken; and
- (v) The source of water available to be taken; and
- (vi) The location of the use of the water, when it will be taken out of a local catchment; and
- (vii) Competing lawful local demand for that water; and
- (viii) The minimum flow to be applied to the take of water, if consent is granted; and
- (ix) Where the minimum flow is to be measured, if consent is granted; and
- (x) The consent being exercised or suspended in accordance with any Council approved rationing regime; and
- (xi) Any need for a residual flow at the point of take; and
- (xii) Any need to prevent fish entering the intake and to locate new points of take to avoid adverse effects on fish spawning sites;
- (xiii) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and
- (xiv) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and
- (xv) Any actual or potential effects on any groundwater body; and
- (xvi) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and (xvii)Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit; and
- (xviii) Any arrangement for cooperation with other takers or users; and
- (xix) Any water storage facility available for the water taken, and its capacity; and
- (xx) The duration of the resource consent; and
- (xxi) The information, monitoring and metering requirements; and
- (xxii)Any bond; and
- (xxiii)The review of conditions of the resource consent; and
- (xxiv)For resource consents in the Waitaki catchment the matters in (i) to (xxiii) above, as well as matters in Policies 6.6A.1 to 6.6A.6.
- Notification and written approvals



- (a) For applications for resource consent to which this Rule applies, to take and use water from a river, the Consent Authority is precluded from giving public notification, if the application is to take and use water from:
- (i) A river for which a minimum flow has been set by or under this Plan; or
- (ii) A river for which it is not necessary for the Council to consider whether, if consent is granted, the taking should be subject to a condition requiring a residual flow to remain in the river at the point of take, or a condition requiring other provision for native fish, other than a condition requiring fish screening.
- Other applications for resource consent to take and use water from a river may be considered without notification as allowed by the Resource Management Act.
- (b) For applications for resource consent to which this rule applies, to take and use water from a water body other than a river, the Consent Authority is precluded from giving public notification.

#### Rule 12.2.2.A

#### Controlled activity: Consent required but always granted

12.2.2A.1 Unless covered by Rule 12.2.1A.1, the taking and use of groundwater for community water supply, by any take identified in Schedule 3B, up to any volume or rate listed in Schedule 3B, is a *controlled* activity.

In granting any resource consent for the taking and use of groundwater in terms of this rule, the Otago Regional Council will restrict the exercise of its control to the following:

- (a) The need to observe a restriction level, and
- (b) The need for a residual flow at the point of take; and
- (c) The rate, volume, timing and frequency of the water to be taken and used; and
- (d) The quantity of water required to meet the needs of the community; and
- (e) The proposed methods of take and delivery of the water taken; and
- (f) The duration of the resource consent; and
- (g) The information and monitoring requirements; and
- (h) Any bond; and
- (i) The review of conditions of the resource consent; and
- (j) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value.
- The Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.

## Schedule 2D

## Schedule of matters to be considered when setting minimum flows and allocation limits

Primary allocation limits and minimum flows will be added to Schedule 2A, to give effect to the objectives and policies in this Plan, through the plan change process following scientific investigation and consultation with the community and affected parties. The lists in 2D.1 and 2D.2 identify matters to which consideration will be given when setting these flows and limits. The lists are not exhaustive and consideration will be given to these and any other relevant matters.

**2D.1** When setting minimum flows in Schedule 2A for a catchment, consideration will be given to the following matters:

- (a) Any existing or previous minimum flow regime or residual flow;
- (b) The 7-day mean annual low flow;
- (c) Interaction among water bodies;
- (d) Ecological values, including the need for flow variability;
- (e) Demand for water, including community water supplies;
- (f) Existing water uses and associated infrastructure;
- (g) Environmental, social, cultural, recreational and economic costs and benefits of taking and using water before and after the implementation of a minimum flow regime; and
- (h) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.

# **Glossary**

Residual flow Refer to Policy 6.4.7.

Note: this is an overview of the provisions that are most relevant to the proposed plan change at this stage. Other relevant provisions include Objective 6.3.1, 5.3.6, Policies 5.4.4, 5.4.8, 5.4.9, 5.4.12, 6.4.0A, 6.4.0B, 6.4.12A, 6.4.16, and Information Requirement 16.3.1. Other provisions may be relevant as the plan change is developed further.

