

# 15

## Methods other than Rules



## 15.1 Introduction

This chapter of the Plan establishes the methods other than rules which will be used to achieve the Plan's objectives.

## 15.2 Liaison

### 15.2.1 Restrictions on taking water

15.2.1.1 The Otago Regional Council will liaise with relevant water supply authorities to ensure that, when takes of water by resource consent holders in a catchment are restricted, any consumption of water in a community supply taken from that catchment at the time of restriction is subject to hosing restrictions.

#### **Principal reasons for adopting**

This method is adopted to ensure that the disadvantages resulting from water shortages are shared by all those in the community using water.

### 15.2.2 Water allocation committees and water management groups

15.2.2.1 The Otago Regional Council will liaise with existing water allocation committees established under Policy 6.4.12 and water management groups established under Policy 6.4.12A, to establish and manage regimes for the rationing of the taking of surface water or groundwater.

#### **Principal reasons for adopting**

This method is adopted to ensure that those taking water, and who may be subject to minimum flow restrictions or aquifer restriction levels, are able to contribute effectively to the preparation of regimes for day-to-day rationing of water and the implementation of restrictions on the taking of water. Information about flows, levels and pressures will be provided to ensure such committees and groups will act in a timely and effective manner whenever restriction situations are imminent.

### 15.2.3 Liaison with water users

15.2.3.1 The Otago Regional Council will liaise with water users to assist with achieving the objectives and policies of the Plan.

15.2.3.2 The Otago Regional Council will help facilitate responses to local water needs, and collaborate with the community and others in scoping strategic options for development of new infrastructure.

#### **Principal reasons for adopting**

These methods are adopted to recognise the need for the Otago Regional Council to have an ongoing relationship with all people using the region's water bodies and to assist in obtaining optimum benefit from the use of Otago's water resources. Activities undertaken within water bodies can affect other lawful users and, through liaison, the concerns of all users of water bodies can be considered.

**15.2.4 Coordination of approaches for the management of spills**

15.2.4.1 In the event of any contaminant spill, the Otago Regional Council will work with other relevant agencies to clean-up, treat or remove the contaminant.

15.2.4.2 In the case of any event causing the accumulation of animal carcasses on the bed of any lake or river, and where ownership of the carcasses cannot be established, the Otago Regional Council will coordinate efforts for the clean-up or removal of the carcasses with the relevant city or district council or any other responsible party.

**Principal reasons for adopting**

These methods are adopted to ensure that there can be a quick and effective response to the accidental spill of contaminants and the accumulation of animal carcasses on the bed of any lake or river. There are several agencies who have an involvement in responding to these events. It is important that there is a coordinated response among the agencies to ensure that the spill or carcasses are quickly and effectively dealt with.

**15.2.5 Promoting the treatment of stormwater**

15.2.5.1 The Otago Regional Council will encourage operators of existing stormwater reticulation systems to utilise techniques that will assist to reduce the level of contaminants discharged from the systems.

**Principal reasons for adopting**

This method is adopted in order to maintain or enhance the quality of water in receiving environments, and thus the natural and human use values supported by water bodies. Techniques such as grassed swales, buffer strips, riparian vegetation and constructed wetlands can assist to trap sediment and remove nutrients present in existing stormwater discharges. The Otago Regional Council will encourage operators to use such techniques in existing stormwater reticulation systems, to reduce the level of contaminants present in the stormwater.

**15.2.6 Recreational sanitary wastes and septic tank use**

15.2.6.1 The Otago Regional Council will consult with city and district councils, and commercial recreation operators, to ensure the adequate provision of collection points for recreational sanitary wastes and human sewage from transport or recreational vehicles and vessels.

15.2.6.2 The Otago Regional Council will, through liaison with city and district councils, promote and encourage the development and use of improved septic tank technology, and other innovative or alternative technology for the on-site treatment and disposal of domestic effluent.

- 15.2.6.3 The Otago Regional Council will encourage city and district councils to install reticulated systems for sewage, where it is appropriate and feasible, in any site where the conditions are such that on-site waste treatment could result in an adverse effect on the environment.

**Principal reasons for adopting**

These methods are adopted to prevent the uncontrolled discharge of human sewage to the environment from vehicles such as campervans, or from septic tank systems which are not performing adequately. It may be necessary to avoid on-site sewage discharges where there is concern about the susceptibility of the receiving environment to such discharges.

**15.2.7 Advocacy to city and district councils about land use controls**

- 15.2.7.1 The Otago Regional Council will seek the inclusion of appropriate provisions within district plans, and appropriate conditions on land use consents, that will assist to further the objectives and policies contained in this Plan.

**Principal reasons for adopting**

This method is adopted to promote integrated management of the adverse effects of land use on Otago’s lakes, rivers, aquifers and wetlands. It recognises that city and district councils have the opportunity to manage land uses that can result in such adverse effects, through rules and other methods in district plans. Such methods should ensure that land is used and developed in a manner that assists to maintain or enhance natural and human use values supported by water bodies.

**15.2.8 Activities on beds or margins of lakes and rivers**

- 15.2.8.1 The Otago Regional Council will liaise with city and district councils to ensure appropriate land use provisions are included within district plans concerning activities on the bed or margins of lakes or rivers.
- 15.2.8.2 The Otago Regional Council will liaise with, and where necessary hold joint hearings with, city and district councils concerning resource consent applications for activities on the bed or margins of lakes or rivers.
- 15.2.8.3 The Otago Regional Council will liaise with the Department of Conservation, Fish and Game Councils, Kai Tahu, Historic Places Trust, landholders and other interested parties to ensure that, where activities could disturb the bed of any wetland, lake or river, any adverse effect on aquatic habitat or heritage values is avoided, remedied or mitigated.

**Principal reasons for adopting**

Activities on the margins of lakes and rivers can have adverse effects on adjacent land in the bed of the lake or river and vice versa. Provisions should be included in district plans to recognise the potential for such “off-site” effects

and ensure that they are appropriately managed. Where such provisions have already been included, both regional and district planning matters may apply in respect of the activity. The first two methods are adopted in recognition of the need for cooperation and consistency between the approaches of the different authorities in order to achieve the integrated management of any adverse effects.

The third method is adopted to encourage cooperative arrangements between the Otago Regional Council and other interested parties in the management of bed disturbance. Such arrangements will ensure that the Council is informed of, and can consider, the concerns of other parties with respect to particular activities or works.

### **15.2.9 Consultation with Kai Tahu**

15.2.9.1 The Otago Regional Council will undertake and promote consultation with Kai Tahu ki Otago and take account of Iwi Management Plans in the management of Otago's water resources.

#### **Principal reasons for adopting**

The use of consultation to address Kai Tahu values is seen by Kai Tahu as being the most appropriate way to recognise and protect the cultural relationship Kai Tahu hold with Otago's water resources. Iwi management plans, particularly the *Kai Tahu ki Otago Natural Resource Management Plan*, form a basis for consultation with Kai Tahu. Other instruments made between the Otago Regional Council and Kai Tahu ki Otago provide a mechanism for consultation by the Council and water users, with Kai Tahu.

## **15.3 Information channels**

### **15.3.1 Provision of information about effective water utilisation**

15.3.1.1 The Otago Regional Council will encourage the efficient use of water by providing information to water users concerning:

- (a) Avoidance of wasteful practices; and
- (b) Opportunities for water storage during periods of high water availability; and
- (c) Opportunities for water conservation in general and particularly during periods of low flows or drought; and
- (d) Water resources available for taking.

#### **Principal reasons for adopting**

This method is adopted to enable water users to make decisions that result in the more efficient use of water than is currently the case. The information provided through this method will ensure better targeting of water use in irrigation or industrial practices and will result in less demand on the water resource when availability is low.

Furthermore, this method will ensure that individual water users and water management groups are provided with information on infrastructure options for

taking, storing, transporting and distributing water, so that informed choices are made about effective water utilisation and management.

This method also ensures that the community and water users are informed, in a timely manner, of the potential for breaching minimum flows and aquifer restriction levels, and the likely onset of a water shortage direction. Water management by either the Council or water management groups will be required until take suspensions and water shortage directions are removed.

### **15.3.2 Provision of information relating to the results of monitoring water bodies**

15.3.2.1 Information gained by the Otago Regional Council from monitoring of water and water bodies will be made available as necessary and appropriate.

#### **Principal reasons for adopting**

This method is adopted to ensure that there is information available in an appropriate form to keep user groups and the community aware of conditions and trends within Otago's water resources and water bodies. This will assist water users in making management decisions about their use of water. Monitoring information will be provided through methods as outlined in section 19.3 of this Plan. This information provision will:

- (a) Allow the community to discuss the implications of the information obtained;
- (b) Assist in the identification of new issues;
- (c) Provide an opportunity for feedback on proposals to address issues; and
- (d) Enable holders of resource consents to be informed of river flows and aquifer levels and pressures, particularly when these are approaching the point at which takes may be restricted.

### **15.3.3 Provision of information relating to flood risk**

15.3.3.1 The Otago Regional Council will provide advice about the likely susceptibility of the location of any proposed structure to flooding, either when a resource consent applicant, or other individual, requests the information, or when a city or district council requires the information in preparing district plans.

15.3.3.2 The Otago Regional Council will provide information to each city and district council concerning the location, extent and likely characteristics of floodplains, floodways, and ponding areas in its district.

#### **Principal reasons for adopting**

These methods reflect the role that regional councils have played in investigating the effects of floods and providing their findings to authorities involved in land use planning. The first method is adopted because it is important to provide information that is available, upon request, in order to enable people and communities to pursue activities in beds and margins of

wetlands, lakes or rivers with safety. Similarly, the second method is adopted because it is essential that city and district councils are informed of the likely costs of allowing certain types of land use development in places prone to inundation. The city or district council may then prepare a hazard register based on this information and inform developers.

#### **15.3.4 Provision of information relating to clean-up of accidental spills**

15.3.4.1 In the event of any contaminant spill, the Otago Regional Council will provide advice to the spiller, where known, relating to options for the disposal or treatment of the contaminant.

##### **Principal reasons for adopting**

This method is adopted to ensure that there is appropriate post-spill management in response to spill events that are likely to lead to water contamination.

### **15.4 Promotion and education**

#### **15.4.1 The maintenance or enhancement of public access**

15.4.1.1 The Otago Regional Council will assist in providing or improving public access to and along Otago's water bodies and will encourage city and district councils, the Department of Conservation and landholders to provide or improve public access to and along Otago's water bodies, where appropriate.

##### **Principal reasons for adopting**

Public access to and along a water body may be restricted due to the fact that there are no formal provisions for legal public access. This method is adopted to enhance public access in such situations by encouraging city or district councils to provide or improve alternative access through provision of public roading or establishment of esplanade reserves, esplanade strips, or access strips. Encouragement will also be given to the Department of Conservation to provide marginal strips along water bodies and Walkways to them, to achieve formal access. Informal public access arrangements can, in addition, be promoted among landholders. Although less secure, such arrangements can assist in maintaining or enhancing public access to and along lakes and rivers.

#### **15.4.2 Advocacy and promotion to landholders and industry groups**

15.4.2.1 The Otago Regional Council will use promotion and education to encourage land management which:

- (a) Does not adversely affect the flow of water in times of low flow;
- (b) Minimises the amount of nutrients, sediment or other contaminants present in runoff;
- (c) Benefits the natural character, or the amenity and habitat values, of wetlands, lakes or rivers and their margins;

- (d) Ensures the retention of appropriate existing riparian vegetation, and allow appropriate revegetation;
- (e) Does not restrict public access to or along the margins of water bodies;
- (f) Introduces innovative clean technologies or waste minimisation methodologies; and
- (g) Assists the retention or protection of any heritage value associated with any wetland, lake or river.

15.4.2.2 The Otago Regional Council will provide information to landholders, industry groups and the general public about mechanisms and techniques to maintain or enhance water quality, such as:

- (a) Minimising land disturbance;
- (b) Maintaining or enhancing appropriate riparian vegetation and buffer strips;
- (c) Nutrient budgeting;
- (d) Avoiding the inappropriate use of stormwater systems;
- (e) Development and implementation of contingency plans for the accidental spill of contaminants;
- (f) Avoiding stock access to water bodies; and
- (g) Upgrading existing groundwater bores to prevent entry of contaminants.

**Principal reasons for adopting**

These methods are adopted to ensure resource users and the wider community are aware of actions that can be taken to reduce the adverse effects of activities on Otago’s water resources. By educating landholders and industry groups of the effect of their activities, the Council can encourage appropriate changes to the behaviour of these individuals or groups.

**15.4.3** *[Repealed – 1 October 2013]*

**15.5 Codes of practice and environmental management systems**

**15.5.1 Development and implementation of codes of practice and environmental management systems**

15.5.1.1 The Otago Regional Council encourages and supports the development and use of codes of practice and environmental management systems that reduce adverse effects on water resources.

15.5.1.2 *[Repealed – 1 May 2014]*



**Principal reasons for adopting**

Codes of practice and environmental management systems set guidelines or standards, and practical mechanisms to influence the use and development of land and the effects of activities on water. Although generally voluntary, codes of practice and environmental management systems are recognised as one of the options that are at the Otago Regional Council's disposal, to achieve desirable outcomes for water bodies. An environmental management system may be developed which is applicable to the specific needs of a single business, while a code of practice may be developed for use throughout an industry.

The first method is adopted to encourage the development of codes of practice and environmental management systems.

**15.6 Remedial works****15.6.1 Remediating physical degradation**

15.6.1.1 The Otago Regional Council will identify and seek to enhance those parts of wetlands, lakes and rivers which have been physically degraded by land use activities.

**Principal reasons for adopting**

This method is adopted to ensure that there is recognition of those parts of wetlands, lakes and rivers and their margins where degradation has occurred as a result of land use activities. Identification of degraded areas will enable appropriate remedial work to be undertaken. Degradation can result in a loss of habitat, natural character and amenity values supported by a water body. The "Enhancing Otago's Rivers" programme has been undertaken to identify areas where degradation has occurred. The details of the work that might be undertaken each year will be open to public submissions as part of the Otago Regional Council's Annual Plan process.

**15.7 Deemed permits****15.7.1 Methods and strategies for deemed permits**

15.7.1.1 The Otago Regional Council will, with the water users, investigate and develop methods and strategies for the orderly transition of deemed permits to resource consents, given that the deemed permits will expire on 1 October 2021.

**Principal reasons for adopting**

The Resource Management Act provides that deemed permits will expire in 2021. Deemed permits have become a significant element of Otago's water management regime and confer significant benefits upon the region's people and communities.

The exercise of deemed permits can constrain opportunities to implement minimum flows established by this Plan to maintain the life-supporting capacity for aquatic ecosystems and natural character of rivers.

The Regional Council will assist deemed permit holders with the development of an appropriate management regime to replace deemed permits when they expire. The Council, in partnership with the affected community, will assist with appropriate investigations and monitoring of the effects of deemed permits.

This method is also adopted to implement Policy 6.6.3 to work with and seek co-operation of deemed permit holders in achieving observance of minimum flows, matching takes with needs and measuring takes and return flows.

It is therefore necessary to initiate an orderly transition from deemed permits to resource consents under the Resource Management Act.

## **15.8 Methods for calculating allocation and applying minimum flows**

### **15.8.1 Methodology for calculating consented 7-day take and assessed actual take**

15.8.1.1 The Otago Regional Council will use the following process when calculating the consented 7-day take of any catchment area for the purposes of Policy 6.4.2(b):

- (a) Establish the weekly rate of surface water take authorised by all consents existing in the catchment at 28 February 1998 (or 19 February 2005 in the Welcome Creek catchment, or 7 July 2000 in the Waianakarua catchment); and
- (aa) Establish the weekly rate of connected groundwater takes authorised by all consents existing at 10 April 2010; and
- (b) Where a consent does not specify a weekly rate the monthly, daily or instantaneous rate will be converted into a weekly rate; and
- (c) Eliminate takes that immediately return all of that water to the river, and takes that are solely a re-take of irrigation runoff water; and
- (d) Eliminate takes that have a minimum flow higher than that set by Schedule 2A.

In calculating a catchment's assessed actual take for the purposes of Policy 6.4.9(a), steps (a) to (d) above are followed by:

- (e) Eliminate takes that cannot be exercised, whether due to legal or physical constraints, when flows in the catchment main stem are at the natural 7-day mean annual low flow; and
- (f) Establish at what flow the takes identified in (e) above will be exercised, and reinstate if the new allocation may interfere; and
- (g) Consider eliminating mining privilege takes which are not currently being exercised.

**Principal reasons for adopting**

This method is adopted to assist in determining the allocation status of catchments in order to establish whether further primary allocation is available, in accordance with Policy 6.4.2, and to assist in calculating the minimum flow set in accordance with Policy 6.4.9(a).

**15.8.1A Methodology for determining supplementary allocation**

15.8.1A.1 Except where specified in Schedule 2B, the Otago Regional Council will assign supplementary allocation blocks for any catchment area for the purposes of Policy 6.4.9(a) using the following table:

<b>7 day mean annual low flow of catchment (litres per second)</b>	<b>Supplementary allocation block (litres per second)</b>
< 10	50
10 – 299	100
300 – 999	250
> 1000	500

The size of the first and any subsequent supplementary allocation blocks are based on the 7-day mean annual low flow of the catchment, and ensure flow variability is maintained.

15.8.1A.2 The Otago Regional Council will use the following process when calculating the supplementary minimum flow for supplementary allocation block(s) for any catchment area, where assessed actual take is unable to be calculated for the purposes of Policy 6.4.9(a):

- (a) Establish the primary allocation under Policy 6.4.2;
- (b) Add a volume equivalent to the first supplementary allocation block for that catchment assigned under Method 15.8.1A.1;
- (c) For each subsequent supplementary allocation block, add the volume equivalent to that supplementary allocation block for that catchment, assigned under Method 15.8.1A.1.

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

$$\text{Supplementary minimum flow} = \text{Primary allocation} + \text{Supplementary allocation(s)}$$

**Principal reasons for adopting**

These methods are adopted to provide certainty and consistency in the determination of the size of supplementary allocation blocks, which in turn determines the associated supplementary minimum flow.

**15.8.2 Methodology for tracking minimum flows**

15.8.2.1 The Otago Regional Council will use the existing flow recorder sites listed in Schedule 2 to track Schedule 2 river flows in order to suspend taking, when Schedule 2 minimum flows have been reached, in accordance with Policy 6.4.11.

15.8.2.2 Outside Schedule 2 areas, where no flow recorder site is currently available and where there are takes present that require flow monitoring, one or more of the following techniques may be used to track river flows:

- (a) Installing a continuous flow recorder station;
- (b) Installing a fully rated staff gauge site, manually read at times of low flow on an as-required basis;
- (c) Utilising a continuous flow recorder station on another river as an indicator of flows in the source river; or
- (d) Using one-off flow gaugings, undertaken on an as-required basis.

River flows are to be measured at the catchment’s discharge point, or as close as practicable upstream of that point having regard to any physical constraints.

**Principal reasons for adopting**

These methods are adopted to indicate the various possible means for tracking river flows, in order to implement policies under section 6.4 of this Plan. The measuring of flows becomes particularly critical when the minimum flows set in the Plan are approached.

**15.8.3 Methodology for calculating assessed maximum annual take for groundwater**

15.8.3.1 The assessed maximum annual take of groundwater from any aquifer for the purposes of Policy 6.4.10A1(a), will be the sum of:

- (a) The annual volume specified on consents to take groundwater from that aquifer; and
- (b) Where a consent does not specify an annual volume, it is calculated using the instantaneous, daily, weekly or monthly limits specified as shown below:
  - (i) Where the purpose of use includes irrigation, convert the consent limit as follows:
    - (1) Where a daily or a monthly limit is specified:

Consent Limit	Purpose of use irrigation
Daily	Multiply by 90
Monthly	Multiply by 6

Note: A 90 day limit is equivalent to irrigating 150 days at 60% of the maximum take rate. A 6 month limit is representative of an annual irrigation season.

Where both limits are specified, use the limit which yields the smaller volume.

(2) Where no daily or monthly limit is specified:

Consent Limit	Purpose of use irrigation
Instantaneous (e.g. litres/second or m <sup>3</sup> /hour)	Convert to a daily volume assuming taking of 12 hours per day, and then multiply by 90.
Weekly	Convert to a monthly volume, by multiplying by 4.3, and then multiplying by 6.

Where both limits are specified, use the limit which yields the smaller volume.

(3) If a consent specifically restricts taking over different periods, use the quantity and time limits specified on the consent.

(ii) Where the only purpose of use is frost-fighting, convert any consent limit to a 20 day volume.

(iii) Except as provided for by (i) and (ii), convert the consent limit to a 12-month volume.

(c) less any quantity specified in a consent as non-consumptive.

The assessed maximum annual take sums only those consents allocated as groundwater under Policy 6.4.1A(c) and (d).

**Principal reasons for adopting**

This method is adopted to assess the annual volume of take from an aquifer, and so assist in determining the remaining allocation available from an aquifer.

**15.9 Gathering of information**

**15.9.1 Resource investigations**

15.9.1.1 The Otago Regional Council, together with water users, relevant agencies and the affected community, will gather information that supports future management decisions on Otago’s water resources.

15.9.1.2 The Otago Regional Council will encourage and undertake research as is necessary to improve knowledge about the natural and human use values of Otago’s water resources.

- 15.9.1.3 The Otago Regional Council, together with water users, relevant agencies and the affected community, will:
- (a) Establish a priority order for investigations into the effects of deemed permits (mining privileges) and resource consents for taking surface water on Otago's water bodies and their habitat values, within two years of this Plan becoming operative; and
  - (b) Identify water bodies with significant native fish values within five years of this Plan becoming operative; and
  - (c) Commence investigations into the effects of deemed permits (mining privileges) and resource consents for the taking of surface water on Otago's water bodies and their habitat values, within five years of this Plan becoming operative.
- 15.9.1.4 The Otago Regional Council will use the information available from Methods 15.9.1.1 to 15.9.1.3 to establish minimum flows for catchments not in Schedule 2, to be added to Schedule 2A by way of plan change.

**Principal reasons for adopting**

These methods are adopted to assist with:

- Making decisions on resource consent applications;
- Monitoring and review of the Plan's provisions;
- Providing for the transition from deemed permits (mining privileges) to water permits; and
- Establishing minimum flows in catchments not identified in Schedule 2A.

For many Otago water bodies, detailed information that can assist with making informed management decisions is limited. The Otago Regional Council will determine appropriate information requirements in consultation with the community and will gather such information.

The Council will establish a priority order for investigating catchments affected by water takes. These investigations will study the effects of deemed permits and other resource consents for the taking of surface water and will include an assessment of effects on native fish values. For catchments not in Schedule 2, investigations will be followed by a plan change to set a minimum flow, where environmental benefit will result. Where environmental benefit will result from applying minimum flows to only resource consents other than mining privileges in the catchment, a plan change may also occur.

The Otago Regional Council will identify water bodies with significant native fish values using the results of the research programme currently being carried out by the Department of Conservation to find water bodies which host native fish species (due for completion by the end of June 2005) and the Council's own studies.

The Council will consider all information from the suite of methods in 15.9.1, including information on economic and social effects, when making decisions concerning the future management of Otago's water resources.

The steps to be taken by the Council each year to implement these methods will be subject to the Council's Annual Plan process.

## **15.10 Plan Implementation**

### **15.10.1 Schedule 15**

15.10.1.1 From the date specified in Schedule 15, where water quality fails to meet the Schedule 15 limits and targets, the Council:

- (a) Will investigate the cause; and
- (b) May take action to address any unauthorised discharge; and
- (c) May review the Schedule 15 limits and targets and alternative permitted discharge rules, including Schedule 16 thresholds.

### **15.10.2 Groundwater**

15.10.2.1 The regional council will maintain (through its Annual Plan and Long Term Plan) a groundwater programme that:

- (a) Investigates water quality in the aquifers in the Otago region;
- (b) Reviews and sets nitrogen leaching rates; and
- (c) Makes changes to the plan under the RMA to introduce revised and/or additional nitrogen controls.

In developing and implementing the groundwater programme the regional council will engage with stakeholders over the scope, methodology (including socio-economic analysis) and sequencing of the investigation process prior to any statutory process. The review of leaching rates will be prioritised in areas that will be identified as high risk for farmer non-compliance and/or risk of not achieving environmental objectives and any revised leaching rates included in this plan prior to 2020.

METHODS OTHER THAN RULES