Attachment 1

OTAGO REGIONAL COUNCIL

Minutes of a meeting of the Hearing Committee for Proposed Plan Change 3B (Pomahaka catchment minimum flow)to the Regional Plan: Water for Otago held at Otago Regional Council, 70 Stafford Street, Dunedin on Thursday 13 November 2014, starting at 10.00am

Membership:	**Cr Gretchen Robertson** (Chairperson) **Cr Gary Kelliher** **Cr Sam Neill**
In Attendance:	**Manager Policy, Dale Meredith** **Senior Policy Analyst, Richard Pettinger** **Manager Hydrology, Matt Hickey** **Director Policy & Resource Planning, Fraser McRae**

RECOMMENDATIONS

Item 1
2014/1678 **Hearing of Submissions on Proposed Plan Change 3B (Pomahaka catchment minimum flow)to the Regional Plan: Water for Otago.**
DPRP, 29 October 2014

Cr Robertson welcomed those people attending the hearing of submissions and further submissions relating to Proposed Plan Change 3B (Pomahaka catchment minimum flow) of the Regional Plan: Water for Otago.

At the commencement of the hearing, the submission that was lodged late was considered.

Cr Robertson moved
Cr Kelliher seconded

That the Hearing Committee accept the late submission by Clutha District Council (Submitter 17).

Motion carried.

Information was tabled from one submitter, Federated Farmers (Submitter 7)

Cr Robertson moved
Cr Kelliher seconded

That the tabled information is received

Motion carried.

The following submitters and further submitters presented their submissions in person, in the following order:

Submitter/ Further Submitter	Submitter	Representative
17	Clutha District Council	Peter Ross
9	Director-General of Conservation	Pene Williams and Peter Ravenscroft
4/22	Otago Fish and Game Council	Peter Wilson
11	Daniel Rietveld	Daniel Rietveld
14	Kai Tahu ki Otago Ltd	Tim Vial
10	Casey Cravens	Casey Cravens

After the completion of presentations by these submitters, the hearing was adjourned to deliberate. Deliberations were held on the same day.

The recommendations of the Hearing Committee on Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago are attached to this report along with the full schedule of changes to the Regional Plan: Water for Otago arising from these recommendations, and the supporting Section 32AA Further Evaluation Report.

Cr Robertson moved
Cr Kelliher seconded

That the Hearings Committee on Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago make its recommendations, attached, to Council.

Motion carried.

Adjourned at 11.13 am for deliberations

The Hearing Committee completed deliberations after lunch.

Cr Robertson moved
Cr Kelliher seconded

That the Hearings Committee on Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago make its recommendations, attached, to Council.

Motion carried.

Attachment 2

Proposed Plan Change 3B (Pomahaka catchment minimum flow)

to the Regional Plan: Water for Otago

Recommendations of the Hearing Committee to Council

Otago Regional Council

28 January 2015

This report presents the recommendations of the Hearing Committee to the Otago Regional Council on submissions and further submissions to Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago.

Hearing Committee:

Councillor Gretchen Robertson

Chairperson

Councillor Gary Kelliher

Councillor Sam Neill

28 January 2015

Abbreviations

Council	Otago Regional Council
MALF	Mean annual low flow (7-day)
NPSFM	National Policy Statement for Freshwater Management 2014
Proposed plan change / plan change	Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago
RMA	Resource Management Act 1991
Water Plan	Regional Plan: Water for Otago (operative at 1 May 2014)
Note: use of section / Section:	
section	A reference to another section in this report. A reference to a section of the Water Plan.
Section	A Section of the RMA.
Note: text marking	
~~Operative word~~ / notified word	Notified change, showing change proposed from the Water Plan
~~Notified word~~ / amended word	Amendment recommended in this report

Background

The Otago Regional Council has prepared Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Water Plan, which seeks to include in the Plan's schedules a primary and supplementary allocation and minimum flow regime, and a ribbon aquifer where the groundwater is considered as surface water.

The minimum flow will apply to some permitted takes, and consented takes other than community water supply takes specified in Schedule 1B.

The proposed plan change was publicly notified in the Otago Daily Times on Saturday 16 August 2014 and submissions closed on Friday 12 September 2014. A total of 17 submissions were received (one of which was received after the formal submission period).

The *Summary of Decisions Requested* and request for further submissions was notified on Saturday 27 September 2014, with further submissions closing on Friday 10 October 2011. There were 2 further submissions received.

The *Officer's Report on Decisions Requested*, which evaluated decisions requested by submitters and further submitters, and made recommendations to the Hearing Committee, was released on Friday 24 October 2014.

Submissions on the proposed plan change were heard on Thursday 13 October 2014 in Dunedin. Five submitters presented evidence to the Hearing Committee, while seven more submitters had a written statement of evidence tabled at the hearing.

Submitters were supportive of the plan change. The main matters raised in the submissions on Plan Change 3B broadly related to:

- Including the Waipahi Rural Stock Water Supply in Water Plan Schedule 1B
- Providing great clarity about the extent of the catchment and the timing of the irrigation season minimum flow.

We thank all of the people who have participated in this plan change process. We have read all submissions and listened to evidence presented at the hearing. In preparing our recommendations we have also been mindful of the Otago Regional Council's statutory responsibilities under the Resource Management Act 1991 (RMA), the National Policy Statement on Freshwater Management 2014 (NPSFM).

As a result of the submission and hearing process, our recommendation to the Otago Regional Council is to amend the plan change as shown in Appendix 1 to this report.

Our recommendations in detail follow.

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CHAPTER 1 – ALLOCATION LIMITS AND MINIMUM FLOWS

The notified changes to the Water Plan sought to set a primary and supplementary allocation and minimum flow regime in the Water Plan schedules.

1.1 Primary allocation minimum flows

Policy 6.4.5 and Schedule 2A
Plan Change 3B pages 2 and 6
Summary of Decisions Requested: pages 8-10; 12-18

The notified plan change proposed to set a primary allocation minimum flow of 3,600 l/s for the period 1 October to 30 April and 7,000 l/s for the rest of the year, in Water Plan Schedule 4A.

Those submitting on the proposed irrigation season minimum flow were generally supportive of this. However, several submitters requested a higher minimum flow during the irrigation season, in order to better provide for values present, while one submitter asked for other irrigation season minimum flow regimes to be given a more thorough consideration in the Section 32 Evaluation Report. Finally, one submitter also asked for a catchment-wide application of the minimum flow, focusing on the confluence of the Waipahi with the Pomahaka River

1.1.1 Recommendations

We considered the submissions and recommend the following:

(a) Adopt Policy 6.4.5 and Rule 12.1.2.5 as notified.

(b) Adopt the minimum flows for primary allocation in Schedule 2A as notified.

1.1.2 Reasons

- Ninety percent of adult brown trout habitat is provided by the proposed irrigation season minimum flow of 3,600 l/s. Any minimum flow that was lower would reduce the habitat available for trout at times of low flow and could result in the gradual decline in the highly significant adult brown trout fishery.
- A slightly higher irrigation season minimum flow than 3,600 l/s would have negligible effect on natural character and aquatic ecosystem values, while further constraining water taking.
- The proposed minimum flow of 3,600 l/s will provide adequately for values in all tributaries, such as the Waipahi River, given climatic and land use conditions will be similar throughout.

1.2 Limiting primary allocation

Rule 12.1.4.2 and Schedule 2A
Plan Change 4C page 4 and 6
Summary of Decisions Requested: pages 8-10; 19-20

The notified plan change proposes to set a primary allocation limit of 1,000 l/s for the Pomahaka catchment in Schedule 2A of the Water Plan.

All submitters were in support of the proposed primary allocation limit.

1.2.1 Recommendation

We considered the submissions and recommend the following:

(a) Adopt the primary allocation limit in Schedule 2A as notified.

1.2.2 Reasons

- The proposed primary allocation limit of 1,000 l/s the river will protect aquatic ecosystems and other instream values, including recreational and amenity values, while also providing for a reasonable reliability of supply to current consent holders.
- No requests were received to amend the proposed primary allocation limit.

1.3 Supplementary minimum flow and allocation

Schedule 2B
Plan Change 4C page 6
Summary of Decisions Requested: pages 20-22

The notified plan change proposes to set a supplementary allocation minimum flow of 13,000 l/s and a supplementary allocation block size of 500 l/s for the Pomahaka catchment in Schedule 2B of the Water Plan.

All submitters were in support of the proposed supplementary allocation minimum flow and block size, or were neutral.

1.3.1 Recommendation

We considered the submissions and recommend the following:

(a) Adopt the supplementary allocation minimum flow and block size as notified.

1.3.2 Reasons

- The proposed supplementary allocation minimum flow gives a reasonable surety of access to water for future consent holders, who will need to store taken water to ensure a guaranteed supply. The proposed supplementary allocation minimum flow and block size are adequate to ensure supplementary taking does not impact on the adult brown trout fishery.
- No requests were received to amend the proposed supplementary allocation minimum flow and block size.

CHAPTER 2 –OTHER PLAN CHANGE MATTERS

2.1 Mapped extent of Pomahaka catchment

Notified Maps B11, 13, 15
Plan Change 4C page 9 and Notified B-series Maps
Summary of Decisions Requested: pages 11-12

The proposed minimum flows and allocation limits apply within the Pomahaka catchment and its Waipahi River tributary, noting the Council has no jurisdiction to apply policies or rules on those parts of the catchment that lie outside Otago region.

Some submitters requested greater clarity within the Water Plan that the rules apply in the catchment within Otago region.

2.1.1 Recommendations

We considered the submissions and recommend the following:

(a) Amend the column entries in Schedules 2A and 2B as shown below:

2A Schedule of specific minimum flows for primary allocation …

…

Catchment See Maps B1-B~~5~~16	**Monitoring Site (with MS number) See Maps B1-B~~5~~16**	**Minimum flow (litres per second – instantaneous flow)**	**Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)**
Pomahaka catchment (within Otago region)	Burkes Ford (MS 15)	3,600 (October to April) 7,000 (May to September)	1,000 *Pomahaka catchment from confluence with Clutha/Mata-Au to headwaters (within Otago region)*

…

2B Schedule of supplementary allocation…

Catchment (See Maps B1–B~~5~~16) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See Maps B1–B~~5~~16)	Supplementary Allocation Block (litres per second – instantaneous flow)
Pomahaka catchment (within Otago region) (first supplementary allocation block)	13,000 At Burkes Ford (MS 15)	500

2.1.2 Reasons

- The amendments will further assist with clarifying that the jurisdiction of the Water Plan cannot apply outside of Otago's regional boundary.
- The achievement of the Plan's objectives, policies and rules in the Pomahaka also relies on provisions for water quantity management on land outside Otago, and managed by Environment Southland.

2.2 Clear specification of irrigation and non-irrigation seasons

Schedule 2A
Plan Change 4C page 6
Summary of Decisions Requested: page 19

The notified plan change proposes to set primary allocation minimum flows that apply in two mutually exclusive seasons of the year.

A number of submitters requested that the Plan clarify that the seasons commence on the first day of the given month and end on the last day of the given month.

2.2.2 Recommendation

We considered the submissions and recommend the following:

(a) Amend column entries in Schedule 2A as shown below and make this amendment, as a consequential change, throughout Schedules 2A and 2B.

2A Schedule of specific minimum flows for primary allocation …

…

Catchment See Maps B1-B~~5~~16	Monitoring Site (with MS number) See Maps B1-B~~5~~16	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Pomahaka catchment	Burkes Ford (MS 15)	3,600 (1 October to 30 April) 7,000 (1 May to 30 September)	1,000 *Pomahaka catchment from confluence with Clutha/Mata-Au to headwaters.*

2.2.3 Reason

- The phrase "1 October to 30 April" is more precise than "October to April".

2.3 Provision of an alluvial ribbon aquifer

Maps C13 and C14; Notified Maps C22 and C23
Plan Change 4C page 9 and Notified C-series Maps
Summary of submissions: Pages 22-23.

The Plan Change as notified deletes reference to the Pomahaka Basin Aquifer and replaces it with a ribbon aquifer, identified in Schedule 2C and Maps C22 and C23, where the groundwater can be considered as surface water, due to connectivity.

All submitters supported the proposed change to groundwater management through the identification of the ribbon aquifer as notified.

2.3.1 Recommendation

We considered the submissions and recommend the following:

(a) Adopt the Schedule 2C identification of the Pomahaka Alluvial Ribbon Aquifer and its mapping on Maps C22 and C23.

2.3.3 Reason

- The identification of the Pomahaka Alluvial Ribbon Aquifer and its mapping on Maps C22 and C23 will facilitate integrated management of the catchment's water resources.

2.4 Schedule 1B community water supply takes

Schedule 1B
Summary of Decisions Requested: pages 30-31

The minimum flow does not apply to community water supply takes specified in Schedule 1B. One submitter requested for the Waipahi Rural Stock Water Supply to be included in Schedule 1B.

2.4.1 Recommendation

We considered the submissions and recommend the following:

(a) Amend Schedule 1B to include the Waipahi Rural Stock Water Supply.

2.4.2 Reasons

- Animal welfare is dependent on a reasonable supply of water and imposing minimum flows on existing stock water supplies may compromise animal welfare unnecessarily.
- RMA Section 14(3) allows individuals to take freshwater for the purpose of domestic use or stock drinking water purposes as long as the take does not, or is not likely to, have an adverse effect on the environment.

2.5 Protection for existing users

Policy 6.4.5; Rule 12.1.4.2; Schedule 2A; 2B and 2C; B-series and C-series Water Plan Maps
Plan Change 4C pages 2, 4 and 6
Summary of Decisions Requested: pages 23-24

While submitters were in support of the proposed plan change, one submitter requested that primary status consents should be able to continue enjoying that status even if a catchment is over-allocated, and the community's values and uses be given due regard.

2.5.1 Recommendation

We considered the submissions and recommend the following:

(a) Adopt the plan change as notified, subject to the amendment outlined in section 2.4.1 of this report.

2.5.2 Reasons

- In principle, Water Plan provisions allow for current primary allocation status to remain at the time of consent renewal unless the water has been taken at higher flows only or has been used inefficiently. Any effect on uses and values resulting from present primary allocation will be addressed through the Plan's existing mechanisms of:
  - Consent surrender, expiry, cancellation or lapse, with no further primary allocation until taking is under the primary allocation limit again;
  - Reduction to that actually used historically (Policy 6.4.2A);

- Takes cannot exceed quantity required for the purpose of use (Policy 6.4.0A).
- Consider granting renewal consents as supplementary allocation, where water has been taking at higher flows (Policy 6.4.2AA).

- The proposal has been developed in consultation with relevant stakeholders, including consent holders. This process ensures community's values and uses have been given due regard.

2.6 Minor and consequential amendments

Chronicle of Key Events, Section 1.4, Schedule 4B
Plan Change 4C page 2
Summary of Decisions Requested: page 16

The plan change proposes a number of minor and consequential changes, including amendments to the presentation of the maps and numbering changes. These changes were all supported.

2.6.1 Recommendation

We considered the submissions and recommend the following:

(a) Adopt any other minor and consequential changes as notified.

2.6.2 Reason

- Clause 10(2) of Schedule 1 RMA provides for any necessary consequential alterations.

CHAPTER 3 – MATTERS NOT ADDRESSED IN THIS PLAN CHANGE

3.1 Beyond the scope of the plan change

Rule 12.1.4.3 and 12.1.4.3
Summary of Decisions Requested: pages 29-30

Matters that were raised during the submissions and hearing process and that are considered beyond the scope of Plan Change 3B include requests for inclusion of a rule in the Water Plan requiring consents be reviewed within 3 years to give effect to the plan change.

3.1.1 Recommendation

We considered the submissions and recommend the following:

(a) Make no amendment to address matters beyond the scope of this plan change

3.1.2 Reason

- Policies or rules for reviewing consents to address over-allocation need to be considered carefully in the context of all Otago catchments, and would need consultation before proposing.

Attachment 2, Appendix 1

Proposed Plan Change 3B (Pomahaka catchment minimum flow)

Regional Plan: Water for Otago

Recommendations of the Hearing Committee to Council

ISBN ##

Otago Regional Council

28 JANUARY 2015

Introduction

The Otago Regional Council has prepared Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago. It proposes to establish minimum flows, allocation limits, and monitoring sites for the Pomahaka River. It will also establish an alluvial ribbon aquifer for the Pomahaka catchment and delete references to a Pomahaka Basin Aquifer.

This document should be read in conjunction with:
- Section 32 Evaluation Report;
- Section 32AS Further Evaluation Report; and
- The Regional Plan: Water for Otago operative as at 1 May 2014.

Amendments proposed to the Regional Plan: Water as a result of Proposed Plan Change 3B are shown as follows: (additions <u>underlined</u>, deletions ~~struck out~~).

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***** *Regional Plan: Water for Otago operative as at 1 May 2014.*

6
Water Quantity

6.4 Policies applying to the taking of water

…

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

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

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

(c) In the case of any existing resource consent to take surface water from the Luggate catchment area, Manuherikia catchment area (upstream of Ophir) and the Taieri catchment areas Paerau to Waipiata, 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) …

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. …

12

Rules: Water Take, Use and Management

12.1 The taking of surface water

12.1.4.2 Taking of surface water as primary allocation in the following Schedule 2A catchment areas:
Lake Hayes (Map B1),
Shag (Map B3),
Trotters (Map B3),
Waianakarua (Map B3),
Taieri Catchment upstream of Paerau (Map B4),
Taieri Catchment Sutton to Outram (Maps B4 and B5),
Water of Leith (Map B5),
Waitahuna (Map B5),
Pomahaka (Maps B11, B13 and B15), and
Lake Tuakitoto (Map B5):
…

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Schedules

1B Schedule of Water Supply Values

…

Southwest Otago subregion

Water body or Catchment	**Site No.**	**Water Supply Values**
Pomahaka River	51	Glenkenich Water Supply at G44:103754 …
Waipahi River	52A	Waipahi Rural Stock Water Supply at G45:196488
Timber …		

2 Schedule of specified restrictions on the exercise of permits to take surface water

…

2A Schedule of specific minimum flows for primary allocation takes in accordance with Policy 6.4.3, and primary allocation limits in accordance with Policy 6.4.2(a) and 6.4.1A

The following schedule:

…

Catchment See Maps B1-B~~5~~16	Monitoring Site (with MS number) See Maps B1-B~~5~~16	Minimum flow (litres per second – instantaneous flow)	Primary Allocation Limits in accord with Policy 6.4.2(a) (litres per second – instantaneous flow)
Pomahaka catchment	Burkes Ford (MS 15)	3600 (October to April) 7000 (May to September)	1000 *Pomahaka catchment from confluence with Clutha/Mata-Au to headwaters*

2B Schedule of supplementary allocation blocks and specific minimum flows in accordance with Policy 6.4.9(c)

Catchment (See Maps B1–B~~5~~16) & Supplementary Block Number	Minimum Flow (litres per second – instantaneous flow) at the monitoring site(s) (See Maps B1–B~~5~~16)	Supplementary Allocation Block (litres per second – instantaneous flow)
Pomahaka catchment (first supplementary allocation block)	13000 At Burkes Ford (MS 15)	500

2C Schedule of aquifers where groundwater takes are to be considered as primary allocation, and subject to minimum flows of specified catchments in accordance with Policy 6.4.1A

Aquifer Name	Map Reference	Catchment to which primary or supplementary allocation limits apply, and minimum flows may apply*
Pomahaka Alluvial Ribbon Aquifer	C22 & C23	Pomahaka catchment**

* as given in Schedules 2A and 2B.

** as provided for by Policies 6.4.2, 6.4.3 and 6.4.9.

Table of minor and consequential changes

<table>
<tr><th>Plan Provision</th><th>Detail of proposed change</th></tr>
<tr><td>Page numbers</td><td>Update page numbers.</td></tr>
<tr><td>Footers</td><td>Change footer to read “Regional Plan: Water for Otago (Updated to <date to be inserted>)”.</td></tr>
<tr><td>Title page</td><td>Change the date to read “Updated to <date to be inserted>”.</td></tr>
<tr><td>ISBN number</td><td>Obtain new ISBN numbers for Regional Plan: Water for Otago.</td></tr>
<tr><td>Chronicle of key events</td><td>Add the following to the end of table:
<table>
<tr><th>Key event</th><th>Date notified</th><th>Date decisions released</th><th>Date operative</th></tr>
<tr><td>Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water</td><td>16 August 2014</td><td><Date to be inserted></td><td><Date to be inserted></td></tr>
</table></td></tr>
<tr><td>Table of contents [on page viii]</td><td>Update page numbers.</td></tr>
<tr><td>section 1.4</td><td>Proposed Plan Change 6A…

Proposed Plan Change 3B (Pomahaka catchment minimum flow) was notified on 16 August 2014, to introduce a minimum flow and allocation regime with monitoring site and a map of the Pomahaka Alluvial Ribbon Aquifer for the Pomahaka catchment. A total of ... submissions and … further submissions were received. Following the hearing, decisions on submissions received were released on … . Plan Change 3B was made operative on … .
…</td></tr>
<tr><td>Schedule 1B</td><td>Amend this section of the tables to delete former supply schemes, as follows:
<table>
<tr><th>Southwest Otago subregion</th></tr>
</table>
<table>
<tr><th>Water body or Catchment</th><th>Site No.</th><th>Water Supply Values</th></tr>
<tr><td>Pomahaka River</td><td>51
<s>52</s></td><td>Glenkenich Water Supply at G44:103754
<s>Pomahaka and Clinton Water Supplies at G45:342498</s></td></tr>
<tr><td>…</td><td></td><td></td></tr>
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Plan Provision	Detail of proposed change
	~~Back Stream West Branch~~ | ~~56~~ | ~~Clydevale Water Supply at G45:324622~~
Schedule 2A: *Catchments of Welcome Creek, Luggate, Manuherikia, Waitahuna, Lake Tuakitoto*	Amend fourth column entries as follows: *"…catchment from ~~mouth~~ confluence with [Waitaki* or *Clutha/Mata-Au] River to headwaters."*
Map numbers (A series)	Delete existing Community Water supply takes numbered 52 and 56 from Maps A6 and A8; Add a new site numbered 52A at grid reference G45:196488.
Map numbers (B series)	Update and rationalise numbering of B series maps and index, as necessary. Correct all references to B series maps within Plan.
Map numbers (C series)	Update and rationalise numbering of C series maps and index, as necessary. Correct all references to C series maps within Plan.
Plan Maps: Maps C13 & C14	Delete reference to Pomahaka Basin Aquifer. *There is no aquifer at this location.* Replace with maps for Pomahaka Alluvial Ribbon Aquifer.
Plan Maps: Map Index for C series	Amend "Map C Index – Aquifers, Groundwater Zones, Groundwater Protection Zones and Seawater Intrusion Risk Zones" to update depiction of former maps C13 and C14, and show deletion of former map C16 (Kuriwao Basin Aquifer). Show all zones. Update references to Plan provisions on Index map sheet, in line with Plan Change 6A.

Proposed Maps are attached as follows:

Map B - Index: Minimum Flow Catchment Boundaries and Monitoring Sites

B11
B13
B15

(adding new maps which show Pomahaka catchment)

Map C - Index: Aquifers, Groundwater Zones, Groundwater Protection Zones and Seawater Intrusion Risk Zones

C22 Pomahaka Alluvial Ribbon Aquifer *(northern part)*
C23 Pomahaka Alluvial Ribbon Aquifer *(southern part)*

(to replace former maps C13 and C14)

Attachment 3

Proposed Plan Change 3B

(Pomahaka catchment minimum flow)

Section 32AA Further Evaluation Report

on Council decisions

Regional Plan: Water for Otago

This Section 32AA Further Evaluation Report builds on the Section 32 Evaluation Report accompanying Proposed Plan Change 3B (Pomahaka catchment minimum flow). This report should be read in conjunction with Proposed Plan Change 3B (Pomahaka catchment minimum flow) incorporating Council Decisions, to the Regional Plan: Water for Otago

Note: All amendments to text in the Section 32 Evaluation Report are shown with additions underlined and deletions ~~struck-out~~

Otago Regional Council

28 January 2015

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Abbreviations

MALF	Mean annual low flow
ORC	Otago Regional Council
Proposed plan change / plan change	Proposed Plan Change 3B (Pomahaka catchment minimum flow)
RMA	Resource Management Act 1991
Water Plan	Regional Plan: Water for Otago (operative at 1 May 2014)

Note: use of section/Section:

section	A reference to another section in this report. A reference to a section of the Water Plan.
Section	A Section of the RMA.

1 Introduction

Proposed Plan Change 3B (Pomahaka catchment minimum flow) seeks to improve the management of the Pomahaka catchment by identifying a primary allocation limit and minimum flow regime. It also addresses a supplementary minimum flow and allocation block size for the river.

The Pomahaka catchment has reliable rainfall and a low need for irrigation but, if climate and land use change, there may be increased demand for irrigation water which, without management, may put pressure on aquatic ecosystems, natural character and other instream values.

Section 32 of the RMA requires an evaluation of the realistically practicable options, assessing their effectiveness and efficiency and summarising the reasons for deciding on the proposed provisions. ~~This~~ The Section 32 Evaluation Report, dated 16 August 2014, ~~makes~~ made that assessment~~, and should be read in conjunction with the proposed plan change.~~ for the notified plan change. This report evaluates the amendments recommended by the Hearing Committee and should be read in conjunction with the proposed plan change incorporating the Committee's recommendations. Section 32AA of the RMA requires a further evaluation to be undertaken when a change is made since the Section 32 Evaluation Report was completed.

2 Background

2.1 The NPS for Freshwater Management 2011

The National Policy Statement on Freshwater Management 2011 (NPSFM) requires ORC to prevent the over-allocation of water resources, by establishing environmental levels for all surface water bodies and aquifers in the region and ensuring the objectives within Otago's Water Plan give effect to the NPSFM objectives.

The Water Plan was made operative on 1 January 2004. Its objectives give effect to the NPSFM by recognising the need to provide for the water needs of Otago's communities and industries, while maintaining long-term water flows and levels in the region's water bodies. The `Plan achieves this by establishing primary allocation limits, supplementary blocks for surface water and aquifer maximum allocation limits for groundwater resources; with appropriate minimum flows and aquifer restriction levels. Catchments with primary allocation limit and minimum flow regimes are listed in Schedule 2A.

As the proposed plan change is intended to extend existing minimum flow arrangements to include the Pomahaka catchment, there will not be any evaluation of this Water Plan framework. This Section 32 evaluation reflects the implications of the plan change and evaluates the environmental, economic, social and cultural effects of the regime as applied to the Pomahaka catchment.

2.2 Pomahaka catchment flows and current allocation

The Pomahaka River catchment is located in Southwest Otago. It has a relatively high reliable rainfall, which reduces dependence on irrigation. Burkes Ford, the flow monitoring site in the lower Pomahaka has recorded the river having a mean flow of 26,800 l/s and a mean annual low flow (MALF) of 4,300 l/s.

Currently, the Pomahaka River is under-allocated in terms of Policy 6.4.2 of the Water Plan. The default primary allocation limit is 50% MALF under that policy, which equals 2,150 l/s. At present, 772 l/s is available for further primary allocation, as approximately 1,378 l/s is allocated in surface water take consents. Current allocation is approximately 30% of MALF, with further new applications being made occasionally. Therefore, it is considered that water taking is not yet having a significant adverse effect on instream values but, because this situation could change in the near future, there is community support for closing further primary allocation. Jowett and Hayes (2004) recommend that for rivers with greater than 30% of MALF allocated, more in-depth consideration is needed for the minimum flow.

Some current takes of groundwater are from alluvium connected to the river, so would be appropriately considered as primary allocation of surface water, as discussed in ORC Report 2014/0749. That report suggests these be considered as surface water in terms of Policy 6.4.1A(a).

2.3 Pomahaka catchment values

The Pomahaka River is recognised in Schedule 1A of the Water Plan as having a regionally significant presence of trout. This catchment and its Waipahi tributary are the only catchments identified for this in the Water Plan. Some consider the Pomahaka the most significant brown trout fishery in Otago. Schedule 1A recognises the catchment's significant trout and salmon spawning areas, and significant areas for development of juvenile fish, as well as its native fish and invertebrate diversity.

Consultation with iwi through Kai Tahu ki Otago and Te Ao Marama has helped identify cultural values of the river. Over recent years the ORC called a number of public workshops to identify the catchment values held by its community and by visitors. These values are described below. In addition, technical reports for this catchment have provided input to the process. The reports identify management flows to maintain habitat for adult brown trout and a number of other fish species.

The main community values identified were:

- The regionally significant brown trout fishery;
- Habitat for native fish including lamprey and longfin eels;
- Agricultural out-of-stream uses for stock drinking water and dairy shed supply;
- Recreational use;
- Amenity values;
- Irrigation for agricultural and horticultural purposes.

Adult brown trout fishery values were considered of highest significance.

A technique known as instream flow incremental methodology (IFIM) analysis has determined flow requirements for a number of fish species found within the Pomahaka catchment. Table 1 outlines these flow requirements at the Burkes Ford flow monitoring site.

Table 1. Flow requirements for fish species at the Burkes Ford flow monitoring site.

Fish Species	Optimum Flow (l/s)	Flow below which habitat declines (l/s)
Adult brown trout	13,000	7,500

Yearling brown trout	6,400	2,500
Brown trout fry	6,000	2,500
Galaxiid sp.	2,200	1,000
Upland bully	2,600	-
Common bully	3,000	2,000
Longfin eel	3,000	1,500
Shortfin eel	3,000	500

The optimum flow and flow at which habitat declines sharply for adult brown trout are higher than MALF. Therefore, the natural low flows of the Pomahaka River are restricting habitat for adult brown trout, even though a regionally significant fishery persists. Jowett (2009) has explained this type of situation as not uncommon: provided the river flows are above 90% of MALF, adult trout will be sustained and, thus, it is expected the adult trout fishery will be maintained.

The flow requirements for fish species and historic take restrictions for consent holders were presented at community workshops in 2010-2011. The workshops built further on this information and allowed the community to identify a number of values important to them, and the flows required to meet these values.

3 Options overview

The following sections discuss the costs and benefits of the options considered and provide a detailed analysis of the preferred option as required by Section 32 of the RMA.

3.1 Irrigation season take management options

The following four options are considered in developing a primary allocation limit and minimum flow regime that protects the values of the Pomahaka River. These options are briefly:

OPTION 1: Maintain the status quo

Option 1 describes the current situation. This option relies on "default" provisions in the Water Plan: default primary allocation limit and no catchment-wide minimum flow; connected groundwater beyond 100 m from perennial surface water body excluded from take calculations.

OPTION 2: Adopt a suggested primary allocation limit and minimum flow regime for the brown trout fishery

Option 2 proposes to set a minimum flow of 3,600 l/s (summer, primary) and a primary allocation limit of 1,000 l/s.

OPTION 3: Easier economic development

Option 3 proposes to set a minimum flow lower than 3,600 l/s (summer, primary) and a higher primary allocation limit than 1,000 l/s.

OPTION 4: More natural river flows

Option 4 proposes to set a minimum flow higher than 3,600 l/s (summer, primary) and a lower primary allocation limit than 1,000 l/s.

In Options 2 to 4, any takes of connected groundwater that can be considered surface water are included, which allows for greater accuracy of the effects of taking.

Note that if those who have primary allocation status consents have been allocated more water than the primary allocation limit established by this plan change, there is no policy in the Water Plan to remove that status. In many Otago catchments, primary allocation exceeds the primary allocation limit set by the Plan, but holders of those consents may continue to benefit from that primary allocation status.

3.1.1 Analysis of options

Option 1	**Maintain the status quo**
BENEFITS:	• No plan change required. • More water can be taken as primary allocation, allowing for increased irrigation opportunity.
COSTS/RISKS:	• Administrative inefficiencies through assessment to impose individual minimum flows or residual flows on a case-by-case basis with every application to take water, resulting in increased consent processing costs for applicants. • No encouragement for collaboration among those taking water when there is no whole-catchment minimum flow in place. • No certainty for maintaining aquatic ecosystem or natural character values when there is no environmental bottom-line set. • Default primary allocation limit allows for more water to be taken, without specific investigation of its sustainability. • Any increased taking will lead to low flows, including any minimum flow, being reached more quickly and frequently. This can lead to "flat-lining" where the river can stay at a particular flow for lengthy periods while all available water above that flow is taken.

Option 2	**Adopt a suggested primary allocation limit and minimum flow regime for the brown trout fishery**
BENEFITS:	• Little change in certainty and reliability of supply to current consent holders. • Reasonable economic opportunities based on taking water remain, with potential for employment in industries based on water takes. • Reasonable level of maintenance of aquatic ecosystem and natural character values. • Reduced potential for "flat-lining" of the river flow. • All existing primary allocation consent holders retain primary allocation status.
COSTS/RISKS:	• Constraints on taking water in a dry year may require some investment in water storage. • Fewer economic opportunities for new takers. • Some need to reduce current allocation to the primary allocation limit (which happens over time through attrition) before any further allocation to primary can be anticipated.

	• For consent renewal, primary allocation consent holders will be limited to no more water than they have historically taken (Policy 6.4.2A). • Plan change required.

Option 3	**Easier economic development**
BENEFITS:	• Economic opportunities based on taking water enhanced, with potential for employment in industries based on water takes or supporting industries; new employment opportunities provided to new takers. • Reduced need for investment in water storage. • Little need to reduce current allocation to the primary allocation limit, before any further allocation to primary can be anticipated. • All existing primary allocation consent holders retain primary allocation status. • If the new primary allocation limit is set higher than the current primary allocation, primary allocation consent holders can apply, upon consent renewal. for more water than they have historically taken (Policy 6.4.2A).
COSTS/RISKS:	• Lower level of maintenance of aquatic ecosystem and natural character values. • Reduction in economic opportunities to current consent holders, from lower certainty and reliability of supply, as more new primary consents could be granted, and more rationing would be required during low river flows. • Increases potential for "flat-lining" of the river flow. • Plan change required.

Option 4	**More natural river flows**
BENEFITS:	• Greater reduction in the potential for "flat-lining" of the river flow. • Higher level of maintenance of aquatic ecosystem and natural character values. • Increase in certainty and reliability of supply to current consent holders as fewer new primary consents granted. • All existing primary allocation consent holders retain primary allocation status.
COSTS/RISKS:	• Economic opportunities based on taking water constrained, with potential for no growth in, or reduction in, employment in industries based on water takes; fewer economic opportunities for new takers. • Increased constraints on taking water in a dry year requiring significant investment in water storage. • Reduces the amount of water available for out-of-stream uses during low flow periods. • Greater need to reduce current allocation to the primary allocation

	limit, before any further allocation to primary can be anticipated. • For consent renewal, primary allocation consent holders will be limited to no more water than they have historically taken (Policy 6.4.2A). • Plan change required.

RECOMMEND OPTION 2

Option 2 provides a balance that is supported by feedback and submissions, as it enables economic opportunities, while ensuring the sustainable management of the river and its ecosystem.

3.2 Winter season take management options

The following two options are considered in developing a primary allocation minimum flow regime for the values of the Pomahaka River over the winter period. These options are briefly:

OPTION 1: Maintain the status quo

Option 1 describes the current situation. This option relies on "default" provisions in the Water Plan: no catchment-wide minimum flow; connected groundwater beyond 100 m from perennial surface water body excluded from take calculations.

OPTION 2: Adopt a suggested primary minimum flow for winter to provide for spawning requirements of the brown trout fishery

Option 2 proposes to set a minimum flow of 7,000 l/s (from May to September, for primary allocation). Any takes of connected groundwater that can be considered surface water are included, which allows for greater accuracy of the effects of taking.

3.2.1 Analysis of options

Option 1	**Maintain the status quo**
BENEFITS:	• No plan change required.
COSTS/RISKS:	• Administrative inefficiencies through assessment to impose individual minimum flows or residual flows on a case-by-case basis with every application to take water, resulting in increased consent processing costs for applicants. • No encouragement for collaboration among those taking water when there is no whole-catchment minimum flow in place. • No certainty for maintaining aquatic ecosystem or natural character values when there is no environmental bottom-line set. • Minimum flow on some consents could allow taking that degrades habitat for spawning brown trout..

Option 2	**Adopt a suggested primary minimum flow for winter to provide for spawning requirements of the brown trout fishery**
BENEFITS:	• Little change in certainty and reliability of supply to current consent holders. • Retention of economic opportunities based on taking water, with

	potential for employment in industries based on water takes. • Maintenance of aquatic ecosystem and natural character values. • Near-optimum conditions maintained for brown trout spawning.
COSTS/RISKS:	• A single minimum flow throughout the year for primary allocation takes would provide ease in administration but no environmental benefits. • Plan change required.

RECOMMEND OPTION 2

Option 2 provides a balance that is supported by feedback and submissions, enables economic opportunities, while ensuring the sustainable management of the river and its ecosystem, over fish spawning periods when little irrigation is needed.

3.3 Supplementary allocation management options

The following two options are considered in developing a year-round supplementary allocation block and minimum flow regime in the Pomahaka River. One is the status quo, the other is a suggested supplementary allocation block with an associated minimum flow. These options are briefly:

OPTION 1: Maintain the status quo

Option 1 describes the current situation. This option relies on the "default" minimum flow provisions in Policy 6.4.9(a) of the Water Plan if water is applied for in excess of the primary allocation limit; connected groundwater beyond 100 m from perennial surface water body excluded from take calculations.

OPTION 2: Establish a minimum flow for supplementary allocation of 13,000 l/s with a block size established by the existing Water Plan provision

Option 2 proposes to set a supplementary minimum flow of 13,000 l/s (all year) for block sizes of 500 l/s. Any takes of connected groundwater that can be considered surface water are included, which allows for greater accuracy of the effects of taking.

3.3.1 Analysis of options

Option 1	**Maintain the status quo (use of default minimum flow under Policy 6.4.9(a)**
BENEFITS:	• No plan change required.
COSTS/RISKS:	• In a catchment not significantly over-allocated, the default supplementary allocation and minimum flow arrangements in Water Plan Policy 6.4.9(a) provide an inequitable minimum flow, potentially lower than that for primary allocation, which is contrary to the logical implementation of the Plan's framework. • This would create administrative difficulty and costs if applicants relinquish primary allocation in favour of supplementary allocation. • Any such minimum flow would be calculated on a case-by-case basis for every application to take supplementary water, resulting in increased consent processing costs for applicants, and possible

	litigation.

Option 2	**Establish a minimum flow for supplementary allocation of 13,000 l/s with a block size established by the existing Water Plan provision**
BENEFITS:	• Reasonable economic opportunities based on taking water remain, with potential for employment in industries based on water takes. • Maintenance of natural flow variability and the aquatic ecosystem and natural character values supported by that variability. • Optimum flow for adult brown trout fishery is not reduced by supplementary allocation takes. • Flow requirements of native fish is not reduced by supplementary allocation takes.
COSTS/RISKS:	• Constraints on new takes of water in a dry year requires investment in water storage to supply all irrigation needs. • New takes may have no water availability for 58% of a typical year. • Plan change required.

RECOMMEND OPTION 2

Option 2 provides a balance that is supported by feedback and submissions, enables reasonable new economic opportunities, while ensuring the sustainable management of higher and variable flows.

3.4 Addition of Waipahi stock water supply take to Schedule 1B

The Clutha District Council requested a decision to include the Waipahi Rural Stock Water Supply in Schedule 1B Water Supply Values in the Water Plan.

OPTION 1: Water supply scheme consent remains subject to minimum flow

Option 1 is the current situation. The scheme remains outside Schedule 1B and the consent's residual flow maintains instream values. A Section 128 consent review would occur, as soon as a minimum flow is operative for the catchment, as required by Policy 6.4.5(d).

OPTION 2: Add the Waipahi stock water scheme to Schedule 1B Water Supply Values

Option 2 adds the scheme to Schedule 1B. Under Policy 6.4.8, no minimum flow restriction applies to these schemes.

3.4.1 Analysis of options

Option 1	**Water supply scheme consent remains subject to minimum flow**
BENEFITS:	• Retains the integrity of the Water Plan, in particular Policy 6.4.5(d) and also Schedule 1B that provides community supply schemes which were in place prior to notification of the Water Plan to remain as primary allocation, not subject to a catchment-wide minimum flow. • Individuals would still be able to exercise the RMA's permission to take drinking water for an individual's animals' reasonable needs, in

	accordance with Section 14(3)(b). • Residual flow on scheme consent maintains aquatic ecosystem and natural character at point of take on Waipahi River.

COSTS/RISKS:	• The scheme would not be able to take water when the catchment-wide minimum flow is reached, so individuals would need to make own arrangements for drinking water for animal welfare, possibly including:
	  • Animals to directly access water bodies for drinking water, with risk to the environment of damage to riparian areas and source water body aquatic ecosystems, natural character and water quality; or
	  • On-farm or scheme water storage to cover low flow periods at additional individual or scheme cost.

Option 2	**Add the Waipahi stock water scheme to Schedule 1B Water Supply Values**
BENEFITS:	• Protects the welfare of animals by providing year-round access to drinking water through the scheme. • Avoids need for private arrangements for individuals' stock drinking water, and the possibility of stock directly accessing water bodies to drink. • Postpones need for scheme operator to provide mechanisms to reduce or avoid risk of natural low water availability at the point of take, such as storage, rationing or waste reduction. • Residual flow on scheme consent maintains aquatic ecosystem and natural character at point of take on Waipahi River.
COSTS/RISKS:	• Alters the presumption in the Water Plan that all post-February 1998 water supply schemes would be subject to minimum flows. • Scheme operators need to ensure resilience against natural low water availability at the point of take even if no minimum flow applies, which requires risk management mechanisms to be put in place. • Sets precedent for several recently-granted community supply takes to be seek exemption from minimum flows. • Wording of Water Plan provisions will need addressing prior to this consent's renewal, or in due course for consistency with this addition,

RECOMMEND OPTION 2

Option 2 addresses the need for stock drinking water to be unimpeded by catchment-wide minimum flow, with the fewest environmental implications.

4 Preferred options: Maintaining a brown trout fishery while enabling economic wellbeing

The following regime is recommended to provide for the habitat of the regionally significant adult brown trout fishery, while enabling an appropriate level of access to water for economic uses. The preferred options above are those that provide the most sustainable balance between instream and out-of-stream benefits and costs.

Minimum flow monitoring site	Burkes Ford
Primary minimum flows	3,600 l/s (October to April)
	7,000 l/s (May to September)
Primary allocation limit	1,000 l/s
Supplementary minimum flow (Block 1)	13,000 l/s
Supplementary allocation (Block 1)	500 l/s

4.1 Detailed assessment

Primary minimum flow

The summer minimum flow of 3,600 l/s proposed is the flow recommended for the habitat of the regionally significant adult brown trout fishery. It will protect the instream values from taking when the river is naturally flowing low. This minimum flow is also in the flow range for maintaining habitat for native fish species present in the river.

The summer minimum flow gives a reasonable surety of supply to current consent holders.

A minimum flow higher than the catchment's MALF of 4,300 l/s would be unlikely to be exceeded naturally throughout most of the irrigation season. Such a minimum flow would be extremely restrictive to consent holders while having insignificant environmental benefit and is thus not considered to provide sustainable management of the water resource.

The winter minimum flow of 7,000 l/s is proposed to provide for adult trout habitat during the winter high flow period. This will provide a reasonable surety of supply to consent holders during the winter period.

Primary allocation limit and the effects of its associated minimum flows on taking

If primary allocation is greater than 1,000 l/s the river could reach the minimum flow more quickly and frequently. This will impact on aquatic ecosystems and other instream values, including recreational and amenity values. The suggested primary allocation limit will provide a reasonable reliability of supply to current consent holders.

Tables 2 and 3 show the effect of the proposed minimum flows over the period of record since 1962, assuming that the actual take from the catchment had been 1,000 l/s. The columns "Number of days for rationing" indicate on how many days there was less than an allocated 1,000 l/s available above the minimum flow, and thus rationing would have been required.

Where primary allocation exceeds the proposed limit of 1,000 l/s, and taking reflects the greater allocation, river flows would be reduced and so the number of days without full availability would

be greater than the figures in these tables and in Appendix A. Appendix A draws on 50 years of hydrograph records, to show historic water availability.

The table columns "Number of days no water is available" indicate the number of days where flows were less than the minimum flows of 3,600 l/s (Oct-Apr) or 7,000 l/s (May-Sept), so that no water would have been available for taking. The columns of "Greatest number of continuous days" shows for how long the longest stretch of no water availability lasted throughout a year in the period 1962 to the present.

Table 2: The effect of the proposed minimum flow and allocation limit on historic water availability in the Pomahaka River (Oct-Apr, minimum flow of 3,600 l/s)

	Number of days for rationing (Oct-Apr)	Number of days no water is available (Oct-Apr)	Greatest number of continuous days when no water available (Oct-Apr)
Average	**12.6**	**13.1**	**7.4**
Minimum	**0**	**0**	**0**
Maximum	**57**	**65**	**50**

Table 3: The effect of the proposed minimum flow and allocation limit on historic water availability in the Pomahaka River (May-Sept, minimum flow of 7,000 l/s)

	Number of days for rationing (May-Sept)	Number of days no water is available (May-Sept)	Greatest number of continuous days when no water available (May-Sep)
Average	**2.1**	**3.4**	**2.4**
Minimum	**0**	**0**	**0**
Maximum	**19**	**19**	**17**

As can be seen in Table 2, under a Burkes Ford minimum flow of 3,600 l/s and 1,000 l/s being taken, water rationing would be required for 12.6 days in an average irrigation season, and 13.1 days where no water would be available at all to consented takes. Since records began, the greatest number of irrigation season days when takes may have needed rationing was 57 in 1989/90. In 1972/3 no water would have been available for 65 days in total as the flow was below this minimum flow. These data are presented in Appendix A attached, which shows that the longest *continuous* period with no water would have been in that 1972/3 season with no water available for taking under consents for 50 of those 65 days. The next longest continuous periods would have been 42 days in 1977/8, 23 days in 1970/1, 22 days in both 1967/8 and 1998/9; then 21 days in the 2012/3 irrigation season. In those five decades the average continuous length of days with no water is estimated to have been 7.4 days and, of the last decade, in 8 years that length was 0 to 7 days.

Appendix A also shows the number of days in past irrigation seasons when rationing would have been necessary and there was water available, assuming no more than 1,000 l/s is taken in total.

Table 3 summarises the situation outside the irrigation season, if a minimum flow of 7,000 l/s had been applied during the period of record. In an average year, less than 4 days of low (or no) water availability occur in that period for primary allocation, and in the driest winter on record (1995) there would have been 19 days with no water available to consented takes, with a continuous stretch of 17 days. It is unlikely that more than 1,000 l/s would be taken at any time outside the irrigation season, so the number of days without full availability would be fewer than the figures in Table 3

Note the numbers in Tables 2 and 3 are revised from those presented in Table 2 in the Consultation Draft version of this report, using a more sophisticated statistical method.

A single minimum flow across the catchment applying to all those in primary allocation provides the opportunity for collaboration within a water allocation committee. This arrangement can assist in rationing, which is intended to avoid a minimum flow being reached. Rationing in a collaborative arrangement can take into consideration unique requirements for water by, for example a small seasonal crop. The ORC may instigate its own rationing regime if a catchment-wide water allocation committee is not set up (Policies 6.4.12B - 6.4.13)

Note that while community water supply takes are within primary allocation, they are not currently subject to a catchment-wide minimum flow, but are normally subjected to a "residual flow" to prevent large portions of the flow of a river being taken at the point of take.

Supplementary regime

A supplementary allocation block size is proposed in accordance with Method 15.8.1A of the Water Plan. The associated minimum flow gives a reasonable surety of access to water for future consent holders, who will need to store taken water to ensure a guaranteed supply. It is adequate to ensure supplementary taking does not impact on the adult brown trout fishery.

This form of allocation helps protect availability of water for primary allocation consent holders while the system of subsequent blocks ensures 50:50 flow-sharing between supplementary takes and the river. It is intended to reflect the community concerns, and will leave more water in the river than the quantity that can be taken under supplementary status consents.

Groundwater

In all cases, takes of groundwater connected to the river's surface water are to be considered as effectively surface water, in terms of Policy 6.4.1A(a). This requires mapping of the ribbon aquifers associated with the river's surface water, and inclusion within Schedule 2C.

Socio-economic impact

It is considered that employment opportunities and other economic measures for activities based on taking water are provided for adequately by the preferred options. Those relying on existing consents will continue to have access to water where the water is used efficiently, and new developments will be able to take into consideration effects on the wider catchment values.

4.2 Summary of evaluation

The recommended regime is seen as the most effective and efficient option as it:

- Provides further water for future users as supplementary allocation;
- Will have minimal adverse effects on instream values and will avoid further degradation;
- Maintains the instream values as far as practicable in a dry year;
- Avoids the loss of natural flow variability, avoiding "flat-lining";
- Provides a reasonable surety of supply to primary allocation consent holders;
- Provides for recreational and amenity values, especially that dependent on brown trout.

Groundwater in the ribbon aquifers is treated as surface water. It is important to consider these as surface water in terms of Policy 6.4.1A(a) and subject them to the same allocation and minimum flow regimes as the surface water takes that are more directly affecting river flows. This way all

takes are subject to the same management and can collaborate to avoid adverse effects on river flows.

It is considered that the proposed changes to the Water Plan will promote sustainable management of taking water within the Pomahaka catchment.

5 Consultation

Four community workshops were held to identify community values for the catchment, consider options and assess the effects of the options. Workshops were held in Tapanui, hosted by the ORC, on 20 April 2010 (20 attendees), 19 July 2010 (15 attendees), 5 May 2011 (15 attendees) and 6 May 2014 (31 attendees).

A Consultation Draft for the Plan Change was released from 4 June to 23 June 2014, with 7 written responses received. Many responses were positive, while one sought a higher primary minimum flow for October to April, and another sought a lower one for that minimum flow. A request that was beyond the intended scope of the Plan Change was made, and another request was for a minor correction. A meeting was held to discuss comments made by the Otago Fish and Game Council on 9 July 2014.

6 Notification and hearing

The proposed plan change was publicly notified on 16 August 2014 and resulted in 17 submissions, one of which was received late, and two further submissions. An Officers' Report with recommendations was prepared on 24 October 2014, along with a full summary of all submissions and further submissions. A hearing was held on 13 November September 2014 in Dunedin, at which 6 submitters spoke to their submissions and one submitter asked for tabled evidence to be considered in their absence.

7 Conclusion

The purpose of the RMA is to promote the sustainable management of natural and physical resources. It is considered that Proposed Plan Change 3B (Pomahaka catchment minimum flow) enables the ORC to better manage the water resources of the Pomahaka catchment, now and for the future, with particular focus on the regionally significant brown trout fishery, while enabling water taking for economic development.

8 Supporting information and references

National Policy Statement on Freshwater Management 2011

Resource Management Act 1991

ORC Regional Plan: Water for Otago (updated to 1 May 2014)

ORC Reports to committee or Council:

2014/0749: South Otago basin aquifers

2014/0838: Consultation Draft Proposed Plan Change 3B (Pomahaka catchment minimum flow)

2014/0958: Notification of Proposed Plan Change 3B (Pomahaka catchment minimum flow)

Section 32 Evaluation Report: Proposed Plan Change 3B (Pomahaka catchment minimum flow) 16 August 2014

Officers' Report on Decisions Requested - Proposed Plan Change 3B (Pomahaka catchment minimum flow) 24 October 2014 (including Appendix 1, Summary of Decisions Requested)

2014/1833: Proposed Plan Change 3B (Pomahaka catchment minimum flow) to the Regional Plan: Water for Otago

ORC Technical Reports and other information material:

Management Flows for Aquatic Ecosystems in the Pomahaka River, August 2006

The Water Resources of the Pomahaka and Waiwera Rivers, June 2007

Groundwater resource management review of the South Otago Basins, April 2014

ORC Pomahaka catchment information sheet, July 2010

ORC Pomahaka community workshop notes, 2010-2011

ORC Pomahaka catchment information sheet, May 2014

ORC Pomahaka community workshop notes and feedback forms, May 2014

Other reference material:

Jowett, I., 2009. Instream habitat and minimum flow requirements in the middle and lower Oreti River. Prepared for Environment Southland, Ian Jowett Consulting, Client Report IJ0903.

Jowett, I & Hayes, J. 2004. Review of methods for setting water quantity conditions in the Environment Southland draft Regional Water Plan. Prepared for Environment Southland, NIWA Client Report HAM2004-018.

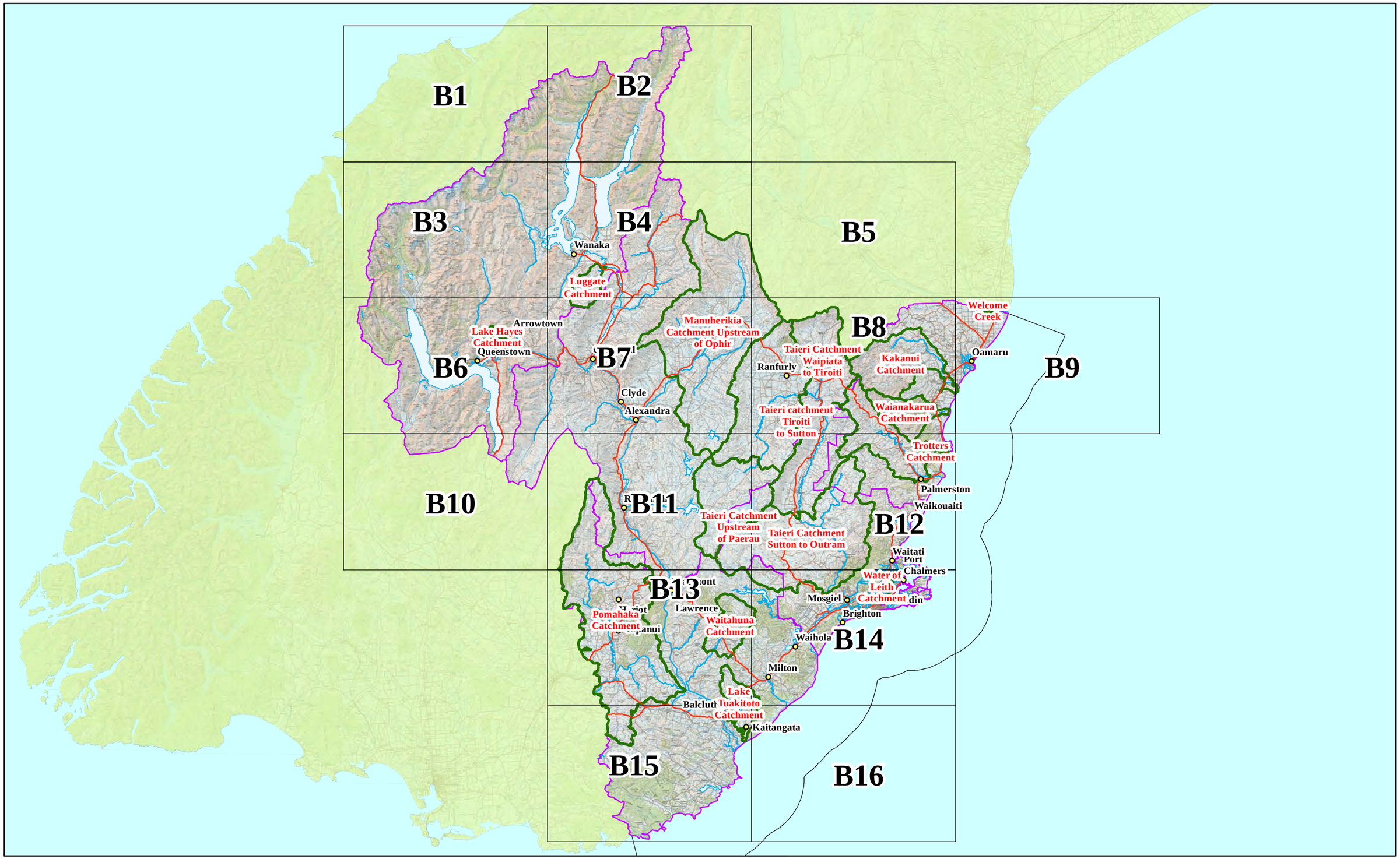
Appendix A

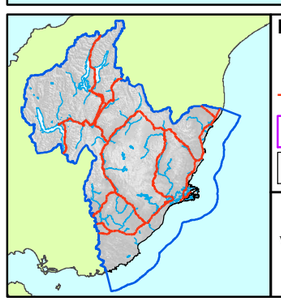
Pomahaka catchment:

Analysis of hydrograph 1962–present, showing historic water availability

Irrigation season	No. days rationing (3,600 – 4,600 l/s)	No. days of no water (<3,600 l/s)	Max continuous days of no water (<3,600 l/s)
1962/63	13	28	10
1963/64	22	24	9
1964/65	0	3	1
1965/66	15	16	13
1966/67	25	2	1
1967/68	22	35	22
1968/69	17	13	3
1969/70	0	4	1
1970/71	17	42	23
1971/72	7	11	6
1972/73	14	65	50
1973/74	17	17	9
1974/75	17	21	15
1975/76	15	57	18
1976/77	23	28	13
1977/78	16	50	42
1978/79	0	0	0
1979/80	0	0	0
1980/81	32	18	10
1981/82	11	0	0
1982/83	0	0	0
1983/84	0	0	0
1984/85	9	0	0
1985/86	16	10	4
1986/87	0	0	0
1987/88	0	0	0
1988/89	9	0	0
1989/90	57	9	5
1990/91	0	0	0
1991/92	0	1	1
1992/93	0	0	0
1993/94	0	0	0
1994/95	34	19	8
1995/96	19	7	4
1996/97	0	0	0
1997/98	7	0	0
1998/99	28	27	22
1999/00	2	0	0
2000/01	31	12	10
2001/02	5	0	0

2002/03	19	14	14
2003/04	15	36	20
2004/05	0	0	0
2005/06	0	0	0
2006/07	8	3	3
2007/08	41	30	7
2008/09	17	10	5
2009/10	21	6	6
2010/11	6	0	0
2011/12	7	3	3
2012/13	11	48	21
Average	12.6	13.1	7.4
Minimum	0	0	0
Maximum	57	65	50





Key

- Towns
- StateHighway
- Otago TLA boundaries
- Regional Boundary

N W E S

20 10 0 20 40

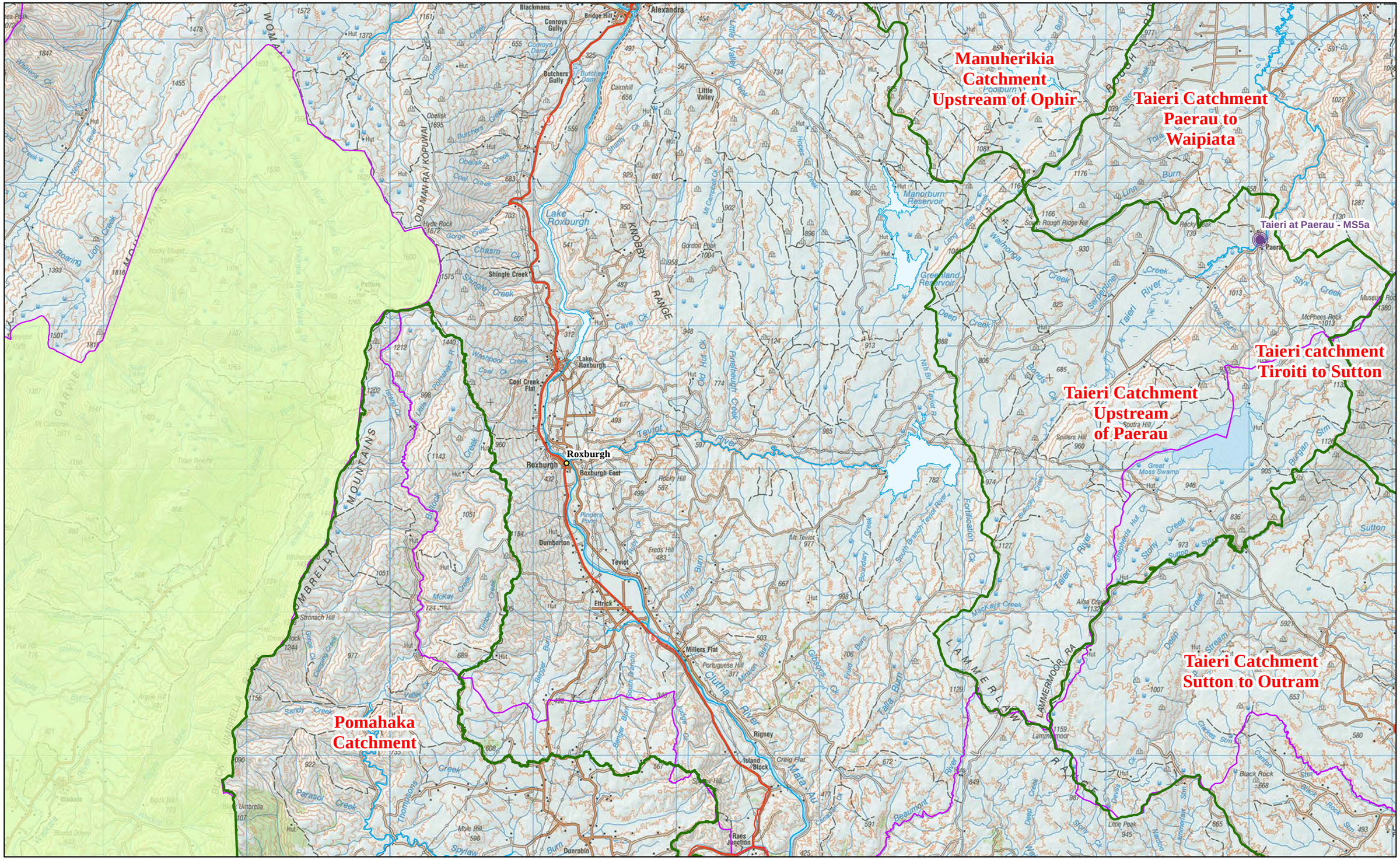
Kilometres

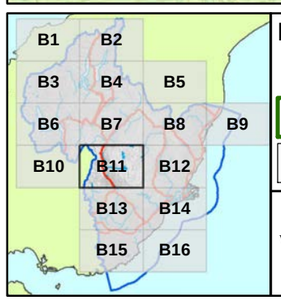
Map B - Index
Minimum Flow Catchment Boundaries and Monitoring Sites

Basemap: Land Information New Zealand Topo50 Maps

Proposed Plan Change 3B
(Pomahaka catchment minimum flow),
16 August 2014

Otago Regional Council





Key

- MinFlowMonitoringSites
- Catchment Boundary
- Otago Regional Boundary

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Kilometres

Basemap: Land Information New Zealand Topo50 Maps

Minimum Flow Catchment Boundaries and Monitoring Sites Map B11

Proposed Plan Change 3B (Pomahaka catchment minimum flow), 16 August 2014

Otago Regional Council

Taieri Catchment
Upstream of Paerau

Taieri Catchment
Sutton to Outram

Pomahaka
Catchment

Waitahuna
Catchment

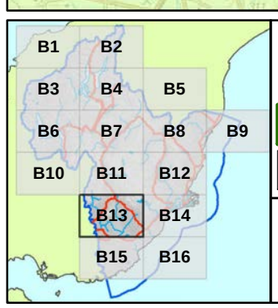
Lake
Tuakitoto
Catchment

Pomahaka at Burkes Ford - MS15

Waitahuna at Tweeds Bridge - MS9

Lovells Creek at SH1 - MS10

Beaumont
Heriot
Lawrence
Milton
Balclutha



Key

- MinFlowMonitoringSites
- Catchment Boundary
- Otago Regional Boundary

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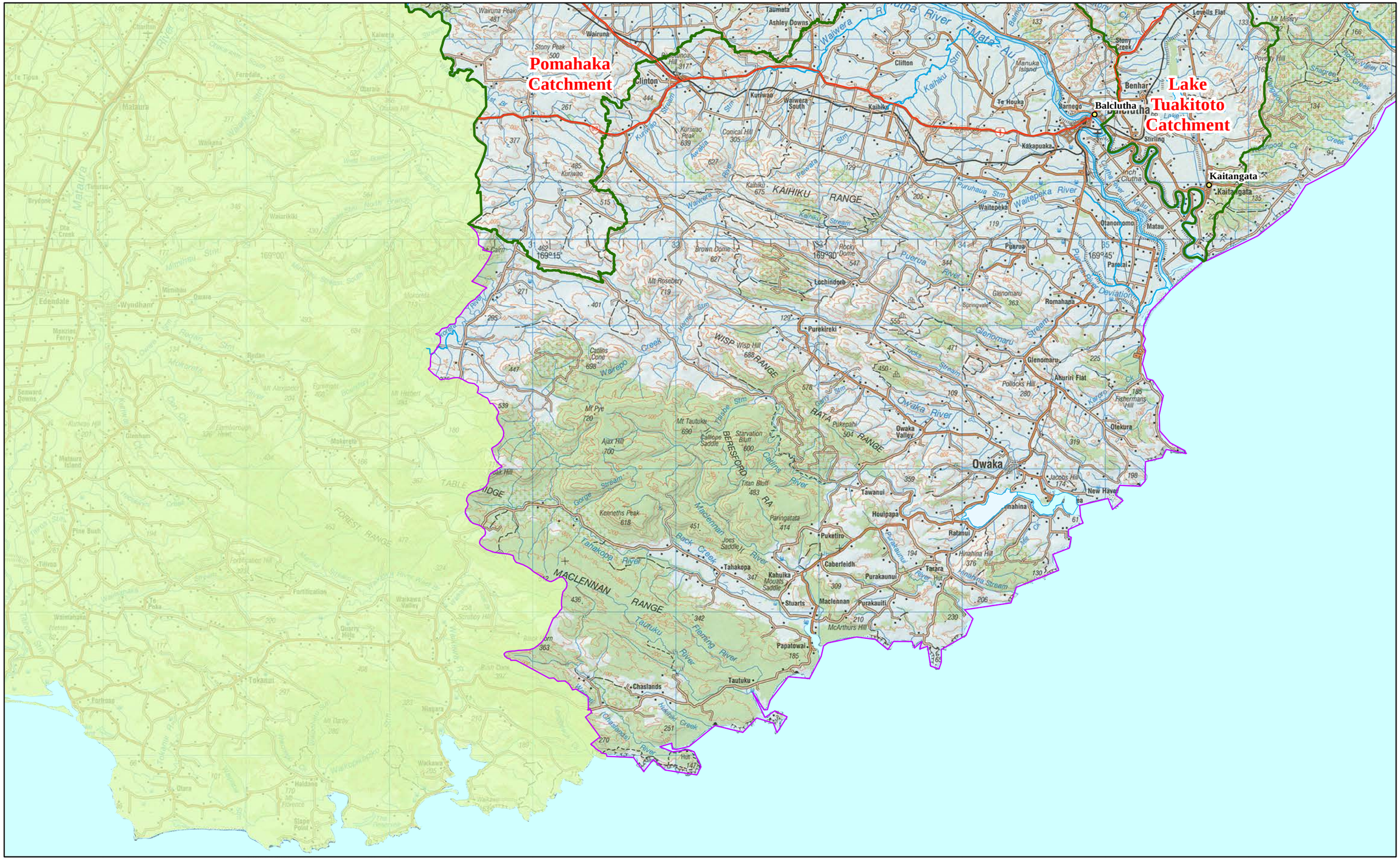
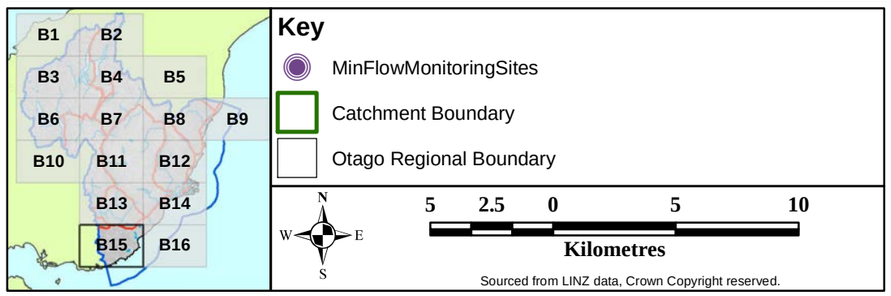
Minimum Flow Catchment Boundaries and Monitoring Sites Map B13

Proposed Plan Change 3B
(Pomahaka catchment minimum flow),
16 August 2014

Otago Regional Council





Key

- MinFlowMonitoringSites
- Catchment Boundary
- Otago Regional Boundary

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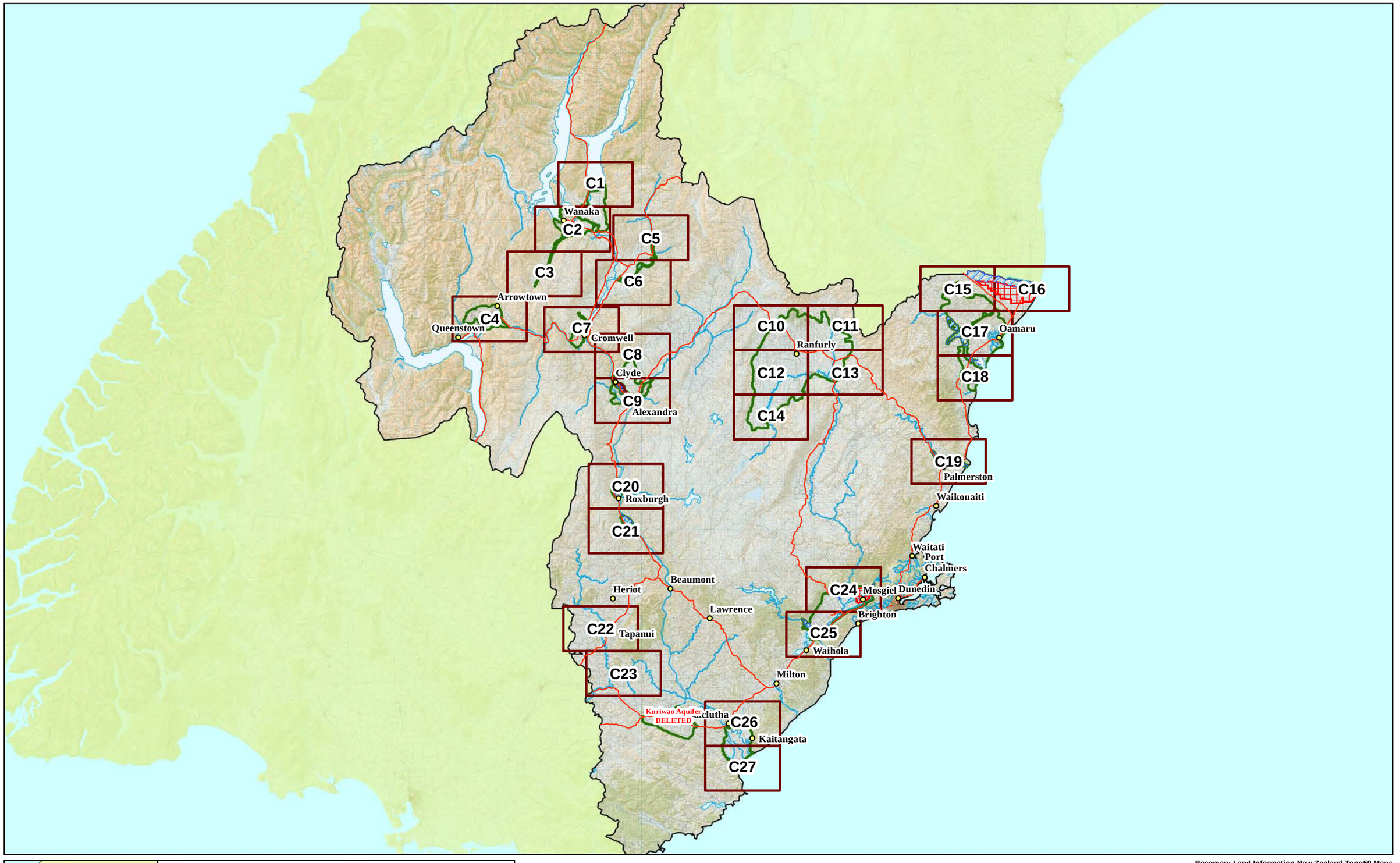
Kilometres

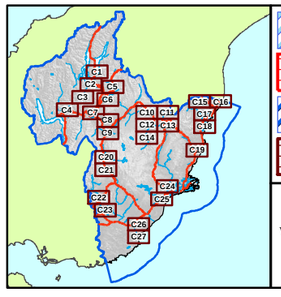
Basemap: Land Information New Zealand Topo50 Maps

Minimum Flow Catchment Boundaries and Monitoring Sites Map B15

Proposed Plan Change 3B (Pomahaka catchment minimum flow), 16 August 2014

Otago Regional Council





Groundwater Protection Zone A
Groundwater Protection Zone B
Groundwater Zone A
Groundwater Zone B
Seawater Intrusion Risk Zone
Aquifers
Regional Boundary

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25 12.5 0 25 50
Kilometres

Map C - Index
Aquifers, Groundwater Zones, Groundwater Protection Zones, and Seawater Intrusion Risk Zones

Refer to:

- Schedules 2C and 3A
- Rules in 12.2, 12.A and 14.2
- Policies 6.4.1A, 6.4.10A, 6.4.10A1, 8.6.5, 9.4.1 and 9.4.18-20

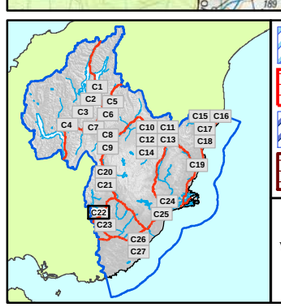
Basemap: Land Information New Zealand Topo50 Maps

Proposed Plan Change 3B
(Pomahaka catchment minimum flow),
16 August 2014

Otago Regional Council

Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer



Groundwater Protection Zone A

Groundwater Protection Zone B

Groundwater Zone A

Groundwater Zone B

Seawater Intrusion Risk Zone

Aquifer Boundary

Regional Boundary

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Kilometres

Map C22
Aquifers, Groundwater Zones, Groundwater Protection Zones, and Seawater Intrusion Risk Zones

Refer to:

- Schedules 2C and 3A
- Rules in 12.2, 12.A and 14.2
- Policies 6.4.1A, 6.4.10A, 6.4.10A1, 8.6.5, 9.4.1 and 9.4.18 – 20

Basemap: Land Information New Zealand Topo50 Maps

Proposed Plan Change 3B
(Pomahaka catchment minimum flow),
16 August 2014

Otago Regional Council

Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer

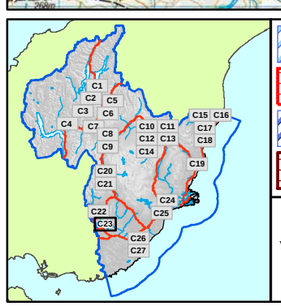
Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer

Pomahaka Alluvial Ribbon Aquifer



Groundwater Protection Zone A

Groundwater Protection Zone B

Groundwater Zone A

Groundwater Zone B

Seawater Intrusion Risk Zone

Aquifer Boundary

Regional Boundary

N W E S

1 0.5 0 1 2

Kilometres

Map C23

Aquifers, Groundwater Zones, Groundwater Protection Zones, and Seawater Intrusion Risk Zones

Refer to:

- **Schedules 2C and 3A**
- **Rules in 12.2, 12.A and 14.2**
- **Policies 6.4.1A, 6.4.10A, 6.4.10A1, 8.6.5, 9.4.1 and 9.4.18 – 20**

Basemap: Land Information New Zealand Topo50 Maps

Proposed Plan Change 3B
(Pomahaka catchment minimum flow),
16 August 2014

Otago Regional Council