

**SPECIAL TRIBUNAL
HURUNUI WATER CONSERVATION ORDER APPLICATION**

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	Of an application for a Water Conservation Order on the Hurunui River
BY	NEW ZEALAND FISH AND GAME COUNCIL, NORTH CANTERBURY FISH AND GAME COUNCIL and NEW ZEALAND RECREATIONAL CANOEING ASSOCIATION Applicants

REPORT OF SPECIAL TRIBUNAL

Introduction

1. New Zealand Fish and Game Council, North Canterbury Fish and Game Council and New Zealand Recreational Canoeing Association ("the applicants") applied to the Minister for the Environment for a water conservation order in respect of the Hurunui River. The application dated August 2007 was made under section 201 in Part 9 of the Resource Management Act 1991 ("RMA").
2. The Associate Minister for the Environment, acting pursuant to section 201(3) RMA and by a letter dated 6th March 2008, sought further information from the applicants. That information was provided by the applicants' lawyers, Anderson Lloyd, in a letter dated 19th March 2008.
3. The Associate Minister for the Environment acting pursuant to section 202 RMA appointed this Special Tribunal ("Tribunal") to hear and report on the application.

4. This is the Tribunal's report to the Minister of the Environment pursuant to section 208 RMA.

Summary

5. The applicants seek a water conservation order in 2 parts; first an order preserving in its natural state the Hurunui River above the Mandamus confluence, including Lake Sumner and the South Branch of the Hurunui River and second an order protecting the river below the Mandamus confluence because of the contribution it makes to the outstanding characteristics of the upper Hurunui.
6. The applicants claimed the river has outstanding fishing, kayaking, cultural and spiritual values.
7. The Tribunal recommends that there be a water conservation order to recognise the outstanding values of the North Branch of the Hurunui, Lake Sumner, Loch Katrine, Lake Mason and the mainstem of the Hurunui River from the Lake Sumner outlet to Surveyors Stream at the end of Maori Gully. The outstanding values are specified in the draft order attached to this report, but in general terms they are;
 - (a) Natural character for the North Branch, Lake Sumner, Loch Katrine, Lake Marion, upper South Branch of the Hurunui River and the mainstem of the Hurunui River from the Lake Sumner outlet to the river's confluence with Gabriels Stream.
 - (b) Fishing for the North Branch, Lake Sumner, Loch Katrine and the mainstem down to the South Branch confluence;
 - (c) Kayaking from the mainstem's confluence with Sisters Stream to its confluence with Surveyors Stream at the end of Maori Gully.



(d) Cultural and spiritual for the North Branch, Lake Sumner, Loch Katrine and the mainstem down to its confluence with Surveyors Stream.

(e) Indigenous fauna for Lake Marion.

8. The Tribunal recommends also that the water conservation order protect the mainstem of the river below the Surveyors Stream confluence because of the contribution it makes to some of those values, especially fishing. The protection precludes dams since they would obstruct fish passage and requires measures to protect fish such as fish screens where water is taken from the river.
9. The South Branch and its tributaries do not have outstanding values which require preservation. While they contribute to the outstanding qualities of the mainstem and could be protected for that reason, the Tribunal has had regard to the needs of primary and secondary industry and the community in respect of these waters. Hurunui Water Project proposes that there be a dam on the South Branch to store water which can be released for abstraction downstream for irrigation when required. The Tribunal has incomplete information about this proposal, its effects and how it could be managed. Accordingly, the Tribunal recommends that the South Branch is not included in a water conservation order so any application for the dam can be assessed in the usual way under the RMA when more information is available.
10. The Tribunal has also had regard to the needs of farming and the community by recommending that the water conservation order provide for the existing Balmoral Water Scheme by stating that existing consents to take water will not be affected by the order.

Hurunui River and Lakes

11. The Hurunui River flows for about 200 kilometres from near Harpers Pass in the Southern Alps to the Pacific Ocean near Cheviot. It is the 6th largest river by volume in Canterbury.
12. Glacial processes molded the headwaters and formed the steep-sided valley through which the North Branch of the Hurunui River flows to Lake Sumner. (In this report "North Branch" means the Hurunui River from its source to Lake Sumner.) The valley floor has been overlaid by fluvial processes which have formed significant braided areas, especially in the lower North Branch where the river flows into the lake.
13. Glacial processes also formed Lakes Sumner, Taylor, Sheppard, Mason and Loch Katrine. The Geopreservation Inventory recognises them as being of National importance and states they are;
Excellent examples of lake features in a formerly glaciated environment. Lakes occupy bedrock hollows and are impounded by moraines or fluvioglacial deposits, originating from ice lobes of the Hurunui Glacier.
14. Lake Sumner is 10 kilometres long and 524 metres above sea level. It is a reasonably deep lake. It is a substantial water body. Lake Sumner is flanked by steep hillsides substantial areas of which are covered by native forest. The Lake's waters flow out over a natural gravel embankment at its eastern end into the mainstem of Hurunui River.
15. Loch Katrine appears to be a separate lake, but it is connected to Lake Sumner by a narrow, natural canal. The canal is sufficiently short for Lake Sumner and Loch Katrine to form part of the same view from some places. There is a close connection between them. There are baches or cribs at the end of Loch Katrine furthest from Lake Sumner. There is a rough, unsealed public road along one

side of Loch Katrine which passes through a locked gate controlled by the Department of Conservation.

16. Lakes Taylor and Sheppard are further from Lake Sumner than Loch Katrine and they are not components in the same view from the road or around the shores of the lakes. Lakes Taylor and Sheppard flow out via the Sisters Stream into the Hurunui River below Lake Sumner. The unsealed public road to Loch Katrine and Lake Sumner passes along the side of Lake Taylor. Grazing land with improved pastures and subdivision of paddocks surrounds much of Lakes Taylor and Sheppard. Homesteads, farm buildings and other improvements for the high country stations are visible components in the environment around these lakes.
17. Lake Marion is in the moraine below Kiwi Saddle above the northern shore of Lake Sumner. The 17 hectare lake is surrounded by native beech forest. It is accessed by a track over Kiwi Saddle which leads to Charley's Point on the shores of Lake Sumner. All aquatic life in Lake Marion is indigenous. The lake has been declared a faunistic reserve under Regulation 68 of the Freshwater Fisheries Regulations 1983 to protect the indigenous aquatic life.
18. The South Branch of the Hurunui River ("South Branch") rises near the main divide between the Dampier and Crawford Ranges. It flows through a valley formed by glaciers. The sides of the upper South Branch's valley are covered in native forest. An area adjoining the upper South Branch is intensively managed for conservation purposes by the Department of Conservation. In the South Branch water is a less obvious component in the landscape than in the North Branch; the river is smaller, at one point during typical flows it disappears into the gravel riverbed for much of the time and in its lower reaches it is contained within a very deep gorge. The South Branch rises and falls quickly, unlike the mainstem below Lake Sumner where the flow is moderated by the lake. High

flows from the South Branch have a flushing effect which removes didymo in the mainstem below the confluence. The South Branch contributes a high proportion of the sediment load in the Hurunui River and this sediment is an important component in the formation of the broad, braided riverbed in the Lower Hurunui below the Mandamus Confluence. There is not a formed public road up the South Branch which restricts the public's ability to use it. There is a walking track from Lake Sumner to Lake Mason which is near the true left bank of the South Branch.

19. Lake Mason is in the same catchment as the South Branch and its waters flow via the Mason Stream into the South Branch. Lake Mason is in 2 parts which are joined by a canal through a narrow piece of land.
20. The mainstem from the Lake Sumner outlet to its confluence with the Mandamus River is part of the Upper Hurunui. It flows through varied landscapes. A notable feature is "Maori Gully", so named because Maori who traversed the route from the West Coast up the Taramakau River, over Harpers Pass and down the Hurunui left in Maori Gully ropes they had used to negotiate it. The river flows very fast over many rapids in Maori Gully and it is contained by the steep sides of the gorge. The river in Maori Gully is valued highly by kayakers. Immediately above the Hurunui/Mandamus confluence is the Hawarden Gap where the river passes through a deep gorge. The river trip down through the Hawarden gap is a long slow trip for kayakers relative to Maori Gully so it is less valued by them.
21. The "Lower Hurunui" from the Mandamus confluence to the sea flows mainly through farmland. The Lower Hurunui's riverbed varies from broad, braided sections which form the habitat for some rare indigenous birds, to confined sections through the Lowry Hills, to an open estuary and finally through a gravel embankment into the Pacific Ocean. The estuary is in the coastal marine area.

22. The applicants seek a water conservation order to preserve or protect amenity and intrinsic values they claim are outstanding (natural character, fishing, protection of indigenous fauna and kayaking) and also cultural and spiritual values and to protect waters which they say contribute to those outstanding qualities. Some submitters in support have expressed preferences under section 205(3) RMA to increase the extent of the application for a water conservation order.
23. The application is opposed by a number of submitters, including farmers who wish to use the river water for irrigation. To set the scene we describe briefly at this stage the principal existing take of water, the Balmoral Scheme, and the principal proposal known as the Hurunui Water Project.
24. The Amuri Water Company Limited ("*Amuri*") operates the Balmoral Scheme which takes water diverted through a race just below the Mandamus confluence. The water is used to irrigate farms. Amuri has an existing water permit for the diversion. Under section 217 RMA, a water conservation order will not affect or restrict the existing water permit. Despite that, Amuri is concerned that conditions in a water conservation order may affect a review of its permit under section 128 RMA or renewal of its permit. Its concerns depend on the terms of any water conservation order for the Lower Hurunui, including whether it contains minimum flow and prescribed fish screen requirements.
25. The Hurunui Water Project ("*HWP*") is seeking to store water in the Upper Hurunui which can be released for abstraction when required for irrigation. It is considering 2 methods for storing water; a dam in the gorge in the lower South Branch and a weir to maintain the level of water in Lake Sumner above its natural level but within its natural range. The Tribunal was told that the proposals are at



a relatively early stage of development; design work has not been done and no assessment of environmental effects has been prepared for them.

The application for a water conservation order

26. The application under section 201(1) RMA for a water conservation order divided the river into 2 parts; the Upper Hurunui above the Hurunui/Mandamus confluence ("*Mandamus confluence*") and the Lower Hurunui below that confluence.

27. The application in respect of the Upper Hurunui claims it has outstanding amenity and intrinsic values which are afforded by waters in their natural state and it should be preserved. This part of the application was based on section 199(1)(a) and (2)(a) RMA;

199(1) Notwithstanding anything to the contrary in Part 2, the purpose of a water conservation order is to recognise and sustain;

(a) Outstanding amenity or intrinsic values which are afforded by waters in their natural state;

199(2) A water conservation order may provide for any of the following;

(a) The preservation as far as possible in its natural state of any water body that is considered to be outstanding;

28. The application in respect of the Upper Hurunui and the Hurunui lakes also seeks recognition of their cultural values. This aspect of the application is based on section 199(2)(c) RMA;

199(2) A water conservation order may provide for any of the following;

(c) The protection of characteristics which any water body has or contributes to, and which are considered to be of outstanding significance in accordance with tikanga Maori.



29. The application in respect of the Lower Hurunui claims it contributes to outstanding characteristics of the Upper Hurunui so it should be protected. This aspect of the application is based on section 199(1)(b) and 199(2)(b) RMA. The latter provides;

199(2); A water conservation order may provide for any of the following;

(b) The protection of characteristics which any water body has or contributes to , and which are considered to be outstanding;

i. As a habitat for terrestrial or aquatic organisms;

ii. As a fishery;

iii. For its wild, scenic, or other natural characteristics;

iv. For scientific and ecological values;

v. For recreational, historical, spiritual, or cultural purposes;

30. The application claimed that the Lower Hurunui contributes to the outstanding fishery, angling and kayaking characteristics of the upper Hurunui. (In this report "kayaking" includes the use of kayaks, rafts, riverbugs, riverboats and all other such vessels and floatation devices.)

31. A draft water conservation order was attached to the application. This draft underwent substantial revision during the course of the hearing, but without changing in a significant way the scope of the order sought.

32. In general terms, the applicants sought in respect of the Hurunui Lakes and the Upper Hurunui that their waters be retained in their natural state including, but not limited to, the quality, quantity, level and rate of flow of the waters. This application is subject to certain exceptions, such as the use of water for domestic or stock needs and use of the water for relatively minor practical purposes which would not compromise the characteristics of the waters in their natural state.

33. In general terms, the applicants sought in respect of the Lower Hurunui River that there be no dams which would impede fish passage and that any fish screens comply with standards specified in the water conservation order. The application claimed the Lower Hurunui contributed to the outstanding fishery, angling and kayaking characteristics of the Upper Hurunui River.

Public Notification, Submissions and Preferences

34. The application was publicly notified pursuant to section 204 RMA.
35. Approximately 368 submissions were filed on the application. Most of the submissions were in support of the application for a water conservation order.
36. Some of the submissions in support sought preferences under section 205(3) RMA; i.e. they sought that the order either preserve a different but related water body in the same catchment as the Hurunui River or that different features and qualities of the water body be preserved. We refer at this stage to 2 preferences sought.
37. The Royal Forest and Bird Protection Society Inc ("Forest and Bird") sought a preference which included a request for the water conservation order to recognise that the Hurunui River and lakes are outstanding habitat for native fish and some endangered native birds.
38. A number of submitters sought that the water conservation order be extended to include the Mandamus River which is expressly excluded from the scope of the application.
39. The Tribunal publicly notified the requests for preferences to provide an opportunity for anyone not already a party to the proceedings to oppose the preferences sought. A number of submissions were filed in opposition to the preferences. Those already parties by being applicants or submitters were

treated as being able to advance a position on the preferences consistent with their application or submission.

Hearing and Site Visits

40. The Special Tribunal convened a hearing on 13th of March 2009 to record appearances and address any procedural issues. The hearing was then adjourned to 30th of March 2009 when the applicants commenced their case in support of their application.
41. The members of the Special Tribunal undertook a number of site visits to enable them to evaluate the evidence and submissions.

The Law

Part 9 RMA; Water Conservation Orders

42. The Environment Court in *Rangitata South Irrigation Limited and others v New Zealand and Central South Island Fish and Game Council* (Decision number C 109/204 and referred to in this report as "*Rangitata*") considered Part 9 in detail and there is no need to repeat what it said, except to the extent required to establish the framework for this report or for some specific reason which is material in this case.

Matters to be considered

43. Section 207 RMA states the matters to be considered by the Special Tribunal;
- 207 Matters to be considered*
- In considering an application for a water conservation order, a special tribunal shall have particular regard to the purpose of a water conservation order and the other matters set out in section 199 and shall also have regard to;*
- (a) The application and all submissions; and*
- (b) The needs of primary and secondary industry, and of the community;*
- and*

(c) The relevant provisions of every national policy statement, New Zealand coastal policy statement, regional policy statement, regional plan, district plan, and any proposed plan.

Purpose of a Water Conservation Order

44. The Special Tribunal is required by section 207 RMA to "...have particular regard to the purpose of a water conservation order....".
45. The Environment Court in *Rangitata* [31] said; *Part 9 is relatively self-contained in that it largely contains its own purpose and principles.* Section 199 in Part 9 RMA states the purpose of water conservation orders.
46. Part 2 RMA contains the purpose which guides decision making under the RMA, other than those made under Part 9 RMA. Part 2 states the purpose of the RMA is to promote sustainable management of natural and physical resources. This involves balancing a broad range of social, economic, environmental and other factors.
47. The statement of purpose in section 199 RMA for Part 9 commences with the words; *Notwithstanding anything to the contrary in Part 2,.....*. The Environment Court in *Rangitata* in [21] to [25] held those words require consideration of the Part 2 provisions which are not contrary to the purpose of a water conservation order. Whether the application of Part 2 is inconsistent with section 199 is a matter of judgment on the facts of each case. The Court in [24] of *Rangitata* said it is likely matters of national importance in section 6(a) to (c) RMA should be recognised in the normal way. That is because the preservation of the natural character of the margins of a river, the protection of any outstanding feature and the protection of any significant habitat of indigenous fauna are not repugnant to the statement of purpose in section 199 but entirely consistent with it. On the other hand, those parts of Part 2 which are inconsistent with the purpose of a

water conservation order are not to be taken into account. Thus if economic factors (such as the economic benefits of abstraction of water for irrigation) are inconsistent with the purpose of Part 9 RMA then they may not be taken into account under Part 2 RMA when considering an application for a water conservation order. However, under section 207 (b) RMA the Tribunal must *have regard to* the needs of primary and secondary industry and the community when considering an application for a water conservation order and those needs may include the benefits which would be achieved by abstracting water.

48. Under section 199(1) the purpose of a water conservation order is "...to *recognise and sustain*..." certain characteristics. The meaning of the word "*recognise*" was not the subject of argument before us. The Environment Court in the *Rangitata* decision addressed in [16] the meaning of the word "*sustain*". In [233] the Court said that if the population of terns on the river was both outstanding and declining the Court was limited to halting that decline and could not consider enhancement. Before us counsel for the Director General of Conservation, Mr. Alty, challenged that conclusion. He submitted the Tribunal should not "*draw back*" from its task of sustaining a species of riverbirds in decline just because doing so might enhance the population of the birds. Counsel for parties opposing the application submitted on the other hand that a water conservation order cannot be made to enhance a characteristic. The Tribunal does not need to resolve this point for the purpose of this report; it recommends the making of a water conservation order to "*sustain*" in the sense of continuing existing characteristics of parts of the river and some of the lakes.
49. The word "*outstanding*" in section 199 RMA was considered in the *Rangitata* decision. In [17] the Court referred to earlier decisions in which it had been held that *the test as to what is outstanding is a reasonably rigorous one and that to*

qualify as outstanding a characteristic would need to be quite out of the ordinary on a national basis. The Court in Rangitata accepted a submission that; the amenities should stand out on a national comparative basis. If one takes a national comparative approach the fact a wider region is well endowed with similar high quality features, may well suggest that particular waters do not stand out when considered in a national context.

We have adopted this approach and also that even if a characteristic is familiar to people in an area it may still be “*outstanding*” when viewed from a national perspective.

50. Under Section 199(1) outstanding “*amenity or intrinsic values*” are to be recognised and sustained. “*Amenity values*” and “*Intrinsic values*” are both defined in section 2 RMA;
51. Under section 199 it is the outstanding amenity or intrinsic values of *waters* which are to be recognised and sustained. A water conservation order must relate to *waters*; it cannot be used to preserve or protect landscapes or heritage buildings for example.
52. Section 199(1)(a) and (2)(a) provide for the purpose of preserving waters in their “*natural state*”. The Environment Court in *Rangitata* held in [20]; “*Natural state*” means *towards the pristine end of the artificial/polluted to pristine continuum*”.

The applicants submitted that the waters of the Upper Hurunui come within this meaning of “*natural state*” and an order should be made to protect the outstanding amenity and intrinsic values of those waters.

53. Section 199 (1)(b) and (2)(b) provide for protection of outstanding characteristics of waters not in their natural state. There is a wide range of characteristics of waters which may be protected by a water conservation order. The applicants

submitted that the waters of the Lower Hurunui are not in their natural state but they have outstanding characteristics which should be protected, namely the contribution they make to the fishery, angling and kayaking characteristics of the Upper Hurunui.

54. Under section 199(2)(c) a water conservation order may provide for;

The protection of characteristics which any water body has or contributes to, and which are considered to be of outstanding significance in accordance with tikanga Maori.

The Environment Court in *Rangitata* [30] said on the basis of the evidence in relation to the Rangitata River that since it is not tika (i.e. correct) to make comparisons across iwi in relation to resources, the national comparison approach does not appear to be appropriate under section 199(2)(c). The Tribunal addresses this below in the context of the Hurunui River.

Matters in section 207(a), (b) and (c)

55. Section 207 requires the Tribunal to have *particular* regard to the purpose of a water conservation order and the other matters set out in section 199 and to also *have regard* to the matters listed in section 207(a), (b) and (c). The Environment Court said in *Rangitata* [43] (in respect of similar provisions in section 212 which applies to the Environment Court)

"The difference between having regard to the matters in paragraphs (a)-(e) and having "particular regard to" the purpose of a water conservation order is to give particular emphasis to the purpose as defined in section 199 of the Act.

56. No particular legal issues arose in this case in relation to section 207(a) and (b).
57. A legal issue did arise in respect of section 207(c) under which the Tribunal is to have regard to;

The relevant provisions of every national policy statement, New Zealand coastal policy statement, regional policy statement, regional plan, district plan, and any proposed plan.

Some counsel for submitters in opposition to the application argued that section 207(c) requires the Tribunal to have regard to proposed national policy statements and the proposed New Zealand Coastal Policy Statement. It was argued that since the proposed statements were referred to in submissions on the application the Tribunal must have regard to them under section 207(a) which requires the Tribunal to have regard to the application and all submissions. We disagree. The wording of section 207(c) is explicit and it does not require the Tribunal to have regard to *proposed* national policy statements and a *proposed* New Zealand coastal policy statement. By contrast it does require a the Tribunal to have regard to "*any proposed plan*". The reference in submissions to *proposed* national policy statements and the proposed New Zealand Coastal Policy Statement may be had regard to in the sense of drawing to the attention of the Tribunal the fact that there are such proposed policies, but reference in a submission does not require the Tribunal to have regard to the contents of a proposed national policy statement or the proposed coastal policy statement. The argument of counsel would mean that the Tribunal must have regard to anything at all referred to in a submission whereas section 207 is specific as to the matters to be had regard to. Unlike proposed plans, proposed national policy statements and a proposed coastal policy statement do not have legal effect until they are made. Consequently we have not had regard to the contents of the Proposed New Zealand Coastal Policy Statement or to the contents of proposed national policy statements.

58. A further issue in respect of section 207(c) was that some submitters in opposition argued that the water conservation order applied for should not be made because the outstanding features the applicants wish to preserve or protect could be provided for better under Environment Canterbury's regional policy statements and plans and the Hurunui District Plan. We disagree. Part 9 has a different purpose to that contained in Part 2 which applies to regional policy statements and plans, and to district plans. Under Part 2 a broad range of factors must be balanced. Under Part 9 aspects of Part 2 which are repugnant to Part 9 are not to be taken into account. Also, Parliament has enacted that anyone may apply at anytime for a water conservation order and there is no obligation to wait until the issues have been addressed in regional or district planning instruments before making an application for a water conservation order.

Burden and standard of proof

59. The Environment Court in *Rangitata* [57] held that there is a legal or persuasive onus on the applicant and submitters in support to put forward evidence to establish that the necessary judgments can be made as to outstanding qualities claimed.
60. The Court continued in [58] that;
- However, once it is found that a part of the river has outstanding characteristics then the purpose of a water conservation order and the non-repugnant provisions of Part II of the Act entail that there is a presumption that those characteristics should be recommended for specified protection.*

The natural state of the waters of the Upper Hurunui

61. The applicants submitted that the waters of the Upper Hurunui are in their "natural state". These waters are not dammed, there are only minor takes of

water, there is little pollution, there are only unsealed roads alongside them, the waters are unmodified and in general terms the waters of the Upper Hurunui have a high degree of naturalness.

62. We conclude the waters of the Upper Hurunui are in their natural state since they are at the pristine end of the continuum from artificial/polluted to pristine. Most of the evidence addressed whether the waters of the upper Hurunui have "*outstanding amenity or intrinsic values*" and we turn to this issue next.

Outstanding amenity or intrinsic values of the Upper Hurunui

63. The applicants asserted that the Upper Hurunui has a number of outstanding amenity or intrinsic values, including;
- (a) Natural character;
 - (b) Wild and scenic characteristics;
 - (c) Habitat for brown trout;
 - (d) Brown trout fishery;
 - (e) Angling for brown trout;
 - (f) Kayaking;

Outstanding amenity values of the Upper Hurunui; natural character, wild and scenic characteristics

64. "*Natural character*" and *wild and scenic characteristics* are aspects of "*amenity values*" as defined in section 2 RMA. The issue is whether these characteristics of the Upper Hurunui constitute an outstanding amenity value in terms of section 199(1)(a) and (2)(a).
65. It is well established that the meaning of "*natural character*" is not restricted to "*pristine*" but includes waters with a high degree of naturalness. Thus the presence of human use of an area, such as the presence of stock, does not necessarily preclude the waters in it having an outstanding natural character.



66. Many witnesses gave evidence on the natural character of the waters. We have taken all of their evidence into account, but it is impractical to record it all in this report. We will identify the general themes of this evidence and then turn to the 2 principal expert witnesses, landscape architects Ms. D Lucas and Mr. P Rough. We will then assess on the required rigorous, national, comparative basis the evidence in respect of different parts of the Upper Hurunui. When making our assessment we shall bear in mind that the enthusiasm of people speaking from the point of view of a particular activity they are passionate about may understandably colour their views.
67. Anglers value very highly the opportunity to fish in back-country areas which are remote and surrounded by a scenic or wild landscape. These qualities are part of the amenities of the waters being fished.
68. Mr Bestic, a submitter and angler, provided us with a series of photos illustrating these qualities the waters of the Upper Hurunui have for fishing. He was representative of a number of private anglers who regard as outstanding the natural character of the Upper Hurunui from a fishing perspective. Their views are deeply and sincerely held.
69. The applicants called a number of professional fishing witnesses. They emphasised from the point of view of the tourist industry the outstanding value of the natural character of the Upper Hurunui for domestic and international tourists. There are different lakes and stretches of river with a variety of scenery available within a short distance.
70. The area is used by trampers. Mr Hensman from Federated Mountain Clubs of New Zealand Inc emphasised the outstanding value of a combination of accessible, significant, back-country lakes and rivers in a very scenic setting. We



accept that this combination of waters in such a setting is a significant aspect of natural character.

71. There is a notable tramp up the Taramakau, over Harpers Pass and down the North Branch of the Hurunui and alongside Lake Sumner. This route is notable for a number of reasons, including the outstanding scenery.
72. From the perspective of kayakers the Upper Hurunui has very high natural character. In general terms, kayakers on the river see little evidence of human activity and the waters have a very high degree of natural character. When kayaking in Maori Gully and the Hawarden Gap they experience a nearly pristine, wild river with rapids, noise and danger.
73. People in the region use the Upper Hurunui area for general recreation, including picnics and school trips. There is no doubt that the waters in a setting with high natural character are the major attraction.
74. Ms Lucas is an experienced, qualified and registered landscape architect. The applicants called Ms Lucas. She used a land systems based assessment of landscape. Ms Lucas identified different landscape typologies. Her evidence was extensive. In general terms, Ms Lucas concluded that all the relevant parts of the Upper Hurunui have outstanding natural character for a variety of reasons.
75. Mr Rough is also an experienced and qualified landscape architect and a Fellow of the New Zealand Institute of Landscape Architects. Mr Rough used a different method of assessment to Ms Lucas. Mr Rough divided the Upper Hurunui into 10 landscape character areas. He said an appreciation of the landscape through which the waters pass is essential to evaluate them for a water conservation order because it is difficult to separate a river from its surroundings. Mr Rough said much of the landscape has been highly modified by rural activities such as farming and forestry. Mr Rough concluded that the upper North Branch, the



upper South Branch and Lake Sumner east of Charley's point to the outlet only have outstanding natural character.

76. Thus the experts agree that the upper North and South Branches, and Lake Sumner from Charley's point to the outlet have outstanding natural character on the national comparative basis required for a water conservation order. Consequently, our evaluation will concentrate on the parts of the Upper Hurunui in respect of which they disagree.
77. We had a commanding view of Lake Sumner west of Charley's Point and of the North Branch above the lake from a vantage point on the hillside on the southern shore of Lake Sumner near the Loch Katrine canal. The 2 expert witnesses disagreed on whether the natural character of these areas is outstanding on a national, comparative basis. Ms Lucas said it is. Mr Rough said it is not and referred to the bare grazed hillside at the western end of Lake Sumner and the grazed extent of the North Branch above Lake Sumner.
78. We think Lake Sumner and the North Branch of the Hurunui should be assessed as a whole and so assessed their natural character is outstanding on a national, comparative basis.
79. The lake when viewed from the outlet at the eastern end has such a high degree of natural character it can be classified as pristine. One looks along the lake past high mountains covered in native forest to the forest clad Charley's Point extending out into the lake. From the southern shore of the outlet one cannot see west of Charley's Point. From Charley's Point one would be able to see most of the lake.
80. West of Charley's Point the grazed hillside on the southern side of the lake is not in itself outstanding. However, in this case it is unrealistic to break the lake down into landscape units and conclude the natural character of the lake west of



Charley's Point is not outstanding. Even from a vantage point on the grazed hillside the waters of the high-country lake as a whole have a natural character which is clearly outstanding. The cleared areas are so secondary to the natural areas the whole area is outstanding for its natural character.

81. The waters of the North Branch above the lake should also be viewed as part of the whole and also they have a high degree of natural character despite the presence of stock and other signs of farming. From our vantage point we saw the sinuous form of the river as it flowed down the steep-sided valley into braided sections which entered the lake. While this section of the river is not pristine, it has outstanding natural character.
82. The waters of Loch Katrine are in a substantially natural state. Ms Lucas assessed them as having a high degree of natural character which would justify a water conservation order but Mr Rough did not. The land around the southern side of Loch Katrine in particular is farmed and there is a small cluster of cribs or baches at the far end and both factors detract from the natural character of the waters.
83. However, the waters of Loch Katrine are connected to Lake Sumner. From our vantage point near the road the clearly outstanding lake and Loch Katrine can be viewed together. Loch Katrine has such a close physical and visual connection with Lake Sumner it should be assessed as part of the whole lake and North Branch waters. The presence of farming and baches does not detract from Loch Katrine's naturalness to the extent that it is no longer part of the outstanding waters.
84. Lake Marion's waters are unquestionably in their natural state. Lake Marion can be described without exaggeration as *nestled* on the hillside above Lake Sumner and it is surrounded by native forest. Lake Marion is pristine. It has outstanding

natural character on its own and as part of the whole Lake Sumner and North Branch waters.

85. The waters of Lakes Taylor and Sheppard are in a substantially natural state, but they are not in general terms connected physically or visually with the outstanding waters of Lake Sumner. While the combination of lakes is an important natural feature, the predominance of grazing land around the lakes and the presence of stock and farm buildings lead us to conclude Lakes Taylor and Sheppard do not have an outstanding natural character on a national, comparative basis.
86. The Raupo Swamp is a small natural feature south of Lake Sheppard. There is a homestead nearby. There was no evidence that it has any special features as a raupo swamp. Its waters do not have outstanding amenity value and they are not part of larger waters which have outstanding amenity values. We conclude the Raupo Swamp does not meet the outstanding amenity value criterion for a water conservation order.
87. The Sisters Stream carries water from Lakes Taylor and Sheppard to the Hurunui River. The public road runs through its valley. The landscape is mixed, but farmland predominates. The Sisters Stream does not meet the outstanding natural character criterion for a water conservation order.
88. The Lake Sumner outlet is part of the lake we have assessed as having outstanding amenity values and the outlet has a special character of its own. The lake waters flow rapidly out through the natural gravel embankment into a section of the mainstem of the river with native forest on its banks. It is unrealistic to separate this top section of the mainstem from the lake's waters. We assess the outlet as having an outstanding natural character down the Hurunui River to its confluence with Gabriels Stream.

89. Below this confluence to Maori Gully the natural character of the mainstem of the river is not outstanding on a national, comparative basis. While the waters are substantially in a natural state and have considerable appeal, they lack the scenic or wild attributes which would justify a water conservation order. The winding river flows through a substantially modified landscape dominated by areas which are being grazed or are reverting to native forest.
90. The waters in Maori Gully down to Surveyors Stream are in their natural state and unquestionably have a wild quality. The steep banks of the gully are unmodified and natural. However, there are many such gorges in New Zealand so these attributes on their own may not meet the rigorous test for a water conservation order. Despite that Maori Gully has the additional characteristics of its history and that its waters are highly valued for kayaking. While these are separate characteristics, it would be artificial not to take them into account when assessing the natural character of the waters in Maori Gully. From an historical perspective the wild waters and steep sides of the gully are the outstanding features which caused Maori to use ropes to traverse the gully and which in turn resulted in the name *Maori Gully*. From the perspective of kayakers who use Maori Gully the wild and scenic waters and gully are outstanding and have a natural character which is outstanding on a national comparative basis.
91. From the end of Maori Gully at about Surveyors Stream the river is deeply incised and the section above the Mandamus confluence is known as the Hawarden Gorge. The character of this area is distinctly different to Maori Gully. The surrounding landscape, especially on the southern side, is much more open and more intensively farmed. It lacks the history associated with Maori Gully and it is not as valuable for kayaking. We conclude the natural character of the

Upper Hurunui from Surveyors Stream to the Mandamus confluence is not outstanding on a national, comparative basis. We turn now to the South Branch.

92. Since there is not a formed public road up the South Branch and the landowner charges a substantial fee for access to it, we received less evidence about it. Some anglers hike over from the Lake Sumner side via Lake Mason to the South Branch. Ms Lucas and Mr Rough visited it and assessed its values.
93. The waters of the South Branch are substantially in their natural state. The degree of naturalness varies, but overall the waters are not dammed, diverted or taken to any material extent and they have a high degree of naturalness.
94. Ms Lucas assessed the whole South Branch as having an outstanding natural character. She referred to the native forest especially in the upper South Branch, the broad braided middle section with native flora and the deep natural gorge of the lower section.
95. Mr Rough divided the south branch into 3 landscape character areas; the upper reaches, the middle reaches and the lower reaches. He said that only the landscape associated with the upper reaches within the mainland island administered by the Department of Conservation are outstanding at a national level. Based on his answers to questions, we understand that the most appropriate physical point above which he considers the South Branch outstanding is its confluence with the Mason Stream which flows out of Lake Mason.
96. Thus both Ms Lucas and Mr Rough assessed the waters of the upper South Branch as being waters in their natural state with outstanding amenity values derived from the surrounding landscape. The upper South Branch is that part of it above its confluence with the Mason Stream. We concur with their assessment.



97. The middle section of the south branch from about the Mason Stream confluence to the gorge has for some people an attractive high-country character but it is not clearly outstanding; the river is not large, the braided river bed is not outstanding relative to other Canterbury rivers such as the Rangitata, and the surrounding mainly farmed landscape lacks the dramatic natural appeal of the landscape around Lake Sumner.
98. The South Branch gorge in the lower section is very deep and it certainly has a high degree of natural character. Mr Rough described it as an impressive natural feature in its own right and outstanding at a district level. He said it has been so compromised by farming he could not describe it as outstanding at a national level. Ms Lucas disagreed and regarded it as outstanding.
99. On balance we consider the gorge does not meet the rigorous test of being outstanding on a national comparative basis. There are many gorges in New Zealand and there was insufficient evidence to satisfy us that this one meets the statutory criteria.
100. We have to this point assessed as being waters in their natural state with outstanding amenity values based on their natural character the following waters;
- (a) The North Branch of the Hurunui River;
 - (b) Lake Sumner;
 - (c) Loch Katrine;
 - (d) Lake Marion;
 - (e) The mainstem of the Hurunui River from the Lake Sumner outlet to Gabriel's Stream;
 - (f) The upper South Branch of the Hurunui River;
 - (g) Maori Gully.

Natural Character; Part 2 RMA

101. The combination of sections 199 and 207 also require us to have particular regard to those parts of Part 2 which are not contrary to the purpose of a water conservation order. It is largely self-evident that the parts of Part 2 which are consistent with a water conservation order are met, but some are particularly relevant.
102. Section 6(a) RMA requires as a matter of national importance recognition of and provision for;
- The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development;*
103. Section 6(a) RMA is relevant to the proposal for a weir at the outlet of Lake Sumner to retain water in the lake. The water level would be within the natural range but the water would be held at higher levels for longer than is natural. Both the weir itself and the retention of water would have serious implications for the natural character of Lake Sumner.
104. The proposed weir would need to be sufficiently large and strong to hold the waters of the lake up to 3 metres higher than they would otherwise be pending release for irrigation. Such a structure would change significantly the natural character of the outlet and the mainstem of the river immediately below it. A water conservation order to prevent this occurring is consistent with section 6(a) and section 199 RMA.
105. Beech trees surround much of Lake Sumner. They grow as low as the naturally fluctuating water level allows. If the water level is higher for longer than is natural the roots of many low trees will drown, the trees will die and the shoreline will

erode. This would have serious adverse visual effects and it is consistent with section 6(a) RMA to make a water conservation order to prevent this.

106. Similarly smaller terrestrial and aquatic plants around the margins of the lake but lower than the beech trees will be affected adversely by the water level being higher for longer than is natural and this in turn is likely to have an adverse effect on the natural character of the lake and its margins.

107. The same section 6(a) RMA considerations apply also to Loch Katrine and the North Branch to the extent they would be affected by the lake's water level being held up by a weir for longer than is natural. In particular, land around the Loch Katrine canal and the wide area where the North Branch enters Lake Sumner would be submerged for longer than is natural resulting in loss of littoral vegetation and may result in erosion and water discolouration.

108. Section 6(d) RMA requires as a matter of national importance recognition of and provision for;

The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers.

109. A weir at the Lake Sumner outlet would have serious implications for public access around the lake. Routes which would have been available may be underwater and erosion caused by water being at a higher level than natural may result in the loss of tracks. Since a detailed assessment of environmental effects of the weir has not been prepared we do not have the evidence before us to assess with any precision the extent of the adverse effects, but conclude a water conservation order to prevent such effects would be consistent with the purpose of a water conservation order and Part 2.



Natural Character; Section 207 (b) The needs of primary and secondary industry and the community

110. Section 207 (b) requires us to *have regard to;*

The needs of primary and secondary industry and the community.

It is convenient to consider briefly at this point whether the needs of industry and the community which we are to have regard to should displace our conclusion on natural character as an outstanding amenity value we are to have particular regard to. We record more fully below the needs of primary and secondary industry and the community and the economic benefits of the Hurunui water project.

111. Our conclusions that the waters listed above have outstanding amenity values based on natural character have been reached on a rigorous, national basis and could be displaced only by compelling evidence. The evidence which related mainly to local or district economic benefits does not displace the findings from a national perspective.

112. In respect of the middle and lower sections of the South Branch, the evidence on natural character was more evenly balanced. We preferred the view that they do not have an outstanding natural character. The potential to dam the lower South Branch gorge to form a lake which would extend up into the middle section is a matter we should have regard to because of the needs of primary industry for water. We consider that if (contrary to our primary conclusion) one were to conclude that the lower and middle sections of the south branch have outstanding natural character the evidence on the needs of primary industry for water may well displace such a finding.

Natural Character; Section 207(c) RMA policies and plans

113. We address below in greater detail the requirement in section 207(c) that we have regard to RMA policies and plans, but it is convenient to address it briefly at this stage in respect of natural character.
114. Environment Canterbury's and Hurunui District Council's RMA instruments reflect the purpose of promoting sustainable management under Part 2 RMA. The Tribunal is to assess the application on the basis of the different statement of purpose in s199 RMA. The difference is significant.
115. The most relevant Environment Canterbury instruments are at an early stage of preparation and little weight can be placed on them at this stage. However, we note that Environment Canterbury's Proposed Natural Resources Regional Plan ("PNRRP") does at this stage of its evolution preclude dams on the Hurunui. The Environment Canterbury and Hurunui District Council RMA instruments do not at this time have a consistent approach to the natural character of the Hurunui River and lakes.
116. We have had regard to the relevant RMA instruments and they do not alter our conclusions on natural character.

Outstanding amenity values of the Upper Hurunui; Kayaking

117. We have concluded above that the waters of the Upper Hurunui are in their natural state. The issue is whether the Upper Hurunui has outstanding amenity values based on kayaking.
118. The applicants presented comprehensive evidence on the outstanding amenity value of parts of the Upper Hurunui River for kayaking. There was no substantial evidence to the contrary.

119. The applicants' evidence in support was that the Hurunui is valued highly for kayaking for a whole range of reasons and the combination of them means it has outstanding amenity value for kayaking. The evidence was most persuasive.
120. The extensive evidence was given by several witnesses and as one would expect a number of them gave similar evidence from their own perspective. Collectively they left us in no doubt that the river is valued very highly for kayaking.
121. Mr Canard is an experienced kayaker and also a tourism and economic consultant with a wide range of experience and qualifications which are relevant. Mr Canard told us that kayaking is a recreational activity enjoyed by over 200,000 New Zealanders each year (*2007/2008 Active New Zealand Survey-SPARC*) and New Zealand is considered one of the top whitewater and sea-water kayaking destinations in the world. He said that overseas, especially in Europe, so many rivers have been dammed there a few remaining rivers in their natural state which are suitable for kayaking.
122. In relation to the Hurunui River, the number of people who kayak on it each year is relatively small, most of them are from the Canterbury region and it is not an international tourist destination for kayaking. These facts are a consequence of the river's location and challenges; unlike the Queenstown rivers it is not adjacent to a major tourist destination and the river's challenges are best suited for people who are making a sustained commitment to the sport rather than a one-off adventure trip.
123. Mr Canard told us that kayakers have participated constructively in hearings in relation to other rivers to negotiate balanced agreements which allow hydro-electricity generation while mitigating its effects on kayaking by providing releases of water for recreational purposes and in some cases whitewater



courses. A theme of his evidence was that while water for electricity generation is renewable the intrinsic qualities of rivers are not. Once they have been lost, they are gone forever. The applicants argued that the natural qualities of so many rivers having been lost this river should be left in its natural state for kayaking.

124. The Hurunui River is close to a major city which increases its amenity value for kayaking. There are few rivers with its attributes for kayaking so close to a major city. It is used by Christchurch school and tertiary education facilities for trips and courses.
125. The Hurunui mainstem below Lake Sumner is readily accessible by vehicle at a number of places which increases its amenity value for kayaking. Kayakers need vehicle access to transport people and kayaks. Vehicle access at points along a river make kayaking the river safer since it means there are a number of haul-out places if required. Also the number of vehicle access points increases the ability to use repeatedly different sections of the river in the course of a day.
126. The public road which runs along the right bank upstream of Surveyors Stream at the bottom of Maori Gully is largely invisible from the river below. Consequently the road which itself is an asset for kayaking does not detract from the remote, wild and scenic qualities enjoyed by kayakers.
127. The witnesses called by the applicants said the Hurunui provides a range of grades up to easy grade 4 which makes it an ideal river for beginners to learn on and for experienced kayakers to enjoy. The combination of grades on a river is itself a valued attribute.
128. The witnesses referred to the flow characteristics of the river which make it so valuable for kayaking. Lake Sumner moderates the flows from the North Branch so it makes a relatively even contribution to the volume of water in the river. By

contrast the South Branch rises and falls quickly and contributes to rapid flow variations in the river. This rare combination means the river offers reliable and varied flows; a reasonable volume continues to flow during dry spells and there can be sharp increases and falls in flow at anytime of the year.

129. Mr Canard assessed the value for kayaking of different sections and the relevant parts of his evidence are as follows;

(a) Main divide to Lake Sumner outlet;

- Scenic value; impressive.
- Kayaking value; low because of poor accessibility.

(b) Lake Sumner to Sisters Stream;

- Scenic value; high.
- Kayaking value; intermediate, access costs \$60.00 per vehicle charged by Lake Taylor Station and with better access this would be the best part of the river to learn on.

(c) Sisters Stream to Jolie Brook;

- Scenic value; moderate.
- Kayaking value; intermediate, short gorge has interesting rapids followed by a section with good wave trains then rapids at the end.

(d) Jolie Brook to South Branch confluence;

- Scenic value; high.
- Kayaking value; high, it has a good practice and warm up section at the start, and every type of rapid follows but never too difficult hence it is a "fabulous" instruction resource.

(e) South Branch from North Esk to Hurunui confluence;



- Scenic value moderate.
- Kayaking value; high, the pool drop rapids are short and tight, but not difficult.

(f) North Esk to South Branch;

- Scenic value; mixed bag.
- Kayaking value; high, 2 gorges but access difficult.

(g) South Branch/Hurunui confluence to Maori Gully;

- Scenic value; moderate.
- Kayaking value; high, open water with many hydraulic features including Devil's Fang Falls.

(h) Maori Gully;

- Scenic value; high.
- Kayaking value; very high. It is the best grade 3 section in New Zealand in Mr Canard's opinion. Varies hugely with flow and it is always a challenge and a pleasure to paddle.

(i) Below Maori Gully to Mandamus;

- Scenic value; high.
- Kayaking value; high. Open valley and gorge contrasts. This trip has many good play spots and the Gap is always a place which raises anxiety levels- a challenge.

130. In summary, Mr Canard rated;

(a) One section, Maori Gully, as having very high kayaking value.

(b) Three sections of the mainstem as having high value for kayaking; Jolie Brook to South Branch confluence, South Branch confluence to Maori Gully and Maori Gully to Mandamus.



(c) Two sections up the South Branch as having high value for kayaking; the South Branch from North Esk to the mainstem confluence, and the North Esk tributary to the South Branch.

131. Mr Canard was forthright and candid. He placed greatest value on the mainstem of the river rather than the North Esk and the South Branch. Although he rated the section from Maori Gully to Mandamus as 'high' he was disinclined to use it because it is a longer, slower trip than Maori Gully which is outstanding. Generally the section from the end of Maori Gully to Mandamus is less valued and used than Maori Gully, it is in more open and less remote landscape and it lacks the outstanding features of the higher parts of the river. Maori Gully is more enclosed by hills which creates a sense of remoteness which adds to the kayaking experience, and it is a faster and more adventurous trip for kayakers. The section from Surveyors Stream to the Mandamus confluence does not meet the rigorous test for a water conservation order.
132. The application sought recognition for kayaking from the Sisters Stream confluence only. Although the section below this confluence was not rated by Mr Canard as having very high value for kayaking, it is part of the trip which does extend down into Maori Gully which is outstanding.
133. We conclude that the mainstem from the Sisters Stream confluence to Surveyors Stream at the end of Maori Gully has outstanding amenity value based on kayaking. Various sections and attributes of the river make different contributions to this outstanding value. There are a broad range of factors referred to above which make the value of the river for kayaking outstanding from a national perspective. This stretch of the river should be treated as a whole; it would be unrealistic to subdivide it in a water conservation order.



134. The evidence in respect of kayaking on the North Esk and on the South Branch gorge is less persuasive. On the basis of all the evidence we conclude they do not have outstanding amenity value based on kayaking.
135. However, the South Branch and its tributaries do contribute special flow characteristics and large volumes of sediment to the mainstem which does have outstanding amenity values based on kayaking. Thus it is part of the river which also makes a contribution to the outstanding value for kayaking.

Kayaking; Part 2 RMA

136. A water conservation order based on the amenity value of the river for kayaking would be in accordance with the relevant parts of Part 2. There are no particular sections in Part 2 which it is useful to refer to at this stage.

Kayaking; Section 207(b) The needs of primary and secondary industry and the community

137. The issue is whether having regard to the needs of farming for water displaces the particular regard we are to have to preservation of the mainstem of the river for its outstanding amenity value based on kayaking.
138. In respect of the mainstem from the Sisters Stream confluence to the bottom of Maori Gully it does not. The mainstem has a value from a national perspective for kayaking which we are to have particular regard to and it is not displaced by the needs of industry and the community for water which we are to have regard to.
139. The South Branch contributes special flow characteristics to the outstanding value of the mainstem for kayaking which we are to have particular regard to. It also has the potential to be dammed to store water for irrigation which is a need of industry we are to have regard to. A dam on the South Branch will alter and ameliorate the flows. The loss of rapid changes in flow especially over the

summer months when high rainfall is being stored will be a significant change for kayakers on the mainstem. The fact the flow is controlled will mean loss of intrinsic value for kayaking even if the managed flow is higher than the natural flow.

140. The South Branch contributes large volumes of sediment to the mainstem of the river. This sediment is important to the river over the long term; it replaces sediment washed out of the river and it plays a critical role in maintaining the braided riverbed in the Lower Hurunui. The largest movement of sediment is during floods. A dam will control floods. A dam will also effectively stop the transport of sediment from above the dam into the mainstem; the sediment will settle in the lake and management techniques will not be able to transport it past the dam. Sediment from sources below the dam will continue to be carried into the mainstem of the Hurunui. The Tribunal noted that there are sources of sediment below the site of the proposed dam.
141. A water conservation order based on section 199(1)(a) is for the purpose of preserving outstanding values. Whether a dam on the South Branch to provide for the needs of primary and secondary industry and the community displaces the particular regard we are to have to preserving the kayaking values of the mainstem is an issue we return to below in the context of examining more closely the evidence on these needs.

Kayaking; Section 207(c) RMA policies and plans

142. We can record at this point that the relevant RMA policies and plans we are to have regard to do not affect our conclusions in respect of the outstanding amenity value of the Hurunui River for kayaking.

Section 199(1)(a); Outstanding amenity values; Fishing

Upper Hurunui River (above Mandamus confluence)

143. The Upper Hurunui brown trout ("trout"; rainbow trout are rarely, if ever, caught in the Hurunui River) fishery comprises a number of connected waterways, each of which has distinct characteristics. Claimed key values represented across the catchment (but to varying degrees within any one particular river reach) include a high national ranking for trout density and abundance, opportunity to practise a variety of angling styles on differing waters in stunning scenery, excellent brown trout habitat (including spawning habitat and high food abundance), unimpeded passage throughout catchment for feeding, high levels of use and good access, and only one of 6 unmodified deep lake outlets in the country. This review of the evidence in relation to the claimed outstanding brown trout fishery of the Upper Hurunui will first examine the evidence supporting this claim for the following reaches separately: North Branch; South Branch; Lake Sumner & Loch Katrine; Lakes Sheppard, Taylor & Mason; Hurunui mainstem (Lake Sumner to South Branch confluence); Hurunui mainstem (South Branch confluence to Mandamus confluence).

North Branch

144. The North Branch is claimed to offer an outstanding headwater or backcountry, remote fishing experience. A key characteristic of this type of fishery includes the ability to observe and target large actively feeding fish, outstanding scenery and clear water. The ability to target individual large fish compensates for the comparatively low number of fish. Expert evidence presented by anglers supported this claim. Mr. A Bell, Mr M. Bell, Mr Chapman, Mr. Colley and Mr Hill concurred that the river provided an outstanding backcountry river fishing experience. They said the average size of fish caught is exceptionally high, the

water is clear allowing fish to be sighted and targeted, and the scenery, comprising grassy river flats and bush-covered ridges, is outstanding. Mr A. Bell commented that the North Branch is in the same league as other comparable rivers that he had fished that were protected by water conservation orders (Mohaka, Rangitikei, Rakaia, Rangitata and Ahuriri) on the basis of the combination of angling quality and scenery. The area sustains a moderate level of fishing pressure, with activity limited to some degree by the locked gate on the public road at Loch Katrine. However, Mr. Chapman commented that he generally avoids using the river for commercial guiding given the comparatively high risk of encountering other anglers on any given day.

145. Expert evidence presented by Dr. Young concurs with the description of the quality and number of fish caught by anglers fishing the North Branch. Dr Young presented evidence that the average size of fish caught in the North Branch (mean length 649 mm, mean weight 2.6 kg) was the highest for any of the Upper Hurunui river reaches. On a national comparative basis, the North Branch rates highly, with the average size of fish being the highest of any rivers for which there were more than 10 records in the New Zealand Headwater Trout Study.

Lake Sumner & Loch Katrine

146. Lake Sumner and Loch Katrine are linked by a short canal, and hence should be viewed as a single fishery. It is only a short walk between the two lakes; boat anglers usually launch in Loch Katrine, then motor along the canal if they wish to gain access to Lake Sumner, and fish can obviously move between the two systems. As trout fisheries in their own right, there was no evidence presented to suggest that Lake Sumner & Loch Katrine are nationally outstanding on the basis of either fish abundance or average size and this is a pattern consistent with most other deep oligotrophic lakes of glacial origin in New Zealand. Dr. Young

presented trout survey data that indicated fish abundance and size is generally less than those found in the river sections of the Upper Hurunui system. Mr Colley commented that the lake contains high numbers of smaller fish, and is an important camping resource for anglers who fish the lake. Many other submitters referred to the importance of the lake as a combined camping and angling resource, particularly for families and anglers undertaking longer visits to the area.

147. Lake Sumner clearly makes a major contribution to the outstanding characteristics of the mainstem of the Hurunui downstream from Lake Sumner to the South Branch confluence. Lake Sumner is one of only six lakes greater than 10 km² on the South Island that retains a natural lake outlet (Dr Young's evidence). Mr Stewart's evidence clearly demonstrated that the lake has a significant moderating influence on downstream river flows. Numerous anglers commented that sediment carried down the North Branch in floods settles out in the lake, allowing both the lake and river downstream to the South Branch confluence to remain fishable in almost all weather. Evidence presented by Dr. Young indicates water clarity downstream of Lake Sumner is consistently high. Dr. Young also presented bioenergetic and otolith microchemical evidence that Lake Sumner provides an important rearing and growth habitat for trout.
148. Although Lake Sumner and Loch Katrine are not outstanding fisheries in their own right they are integral parts of the outstanding fishery comprising the North Branch, Lake Sumner, Loch Katrine and the Hurunui River down to the South Branch confluence.

Mainstem Hurunui from Lake Sumner to South Branch Confluence

149. All anglers presenting evidence to the Tribunal agreed that the Hurunui from Lake Sumner to the South Branch confluence provides outstanding angling in



terms of size and abundance of fish, variety of water to fish, water clarity and consistently fishable flows in almost all weather. Mr A. Bell commented that the variety of water is outstanding, suitable for all popular angling techniques and sustains an evening caddis rise of considerable note. Mr M. Bell commented that the reach can provide spectacular fishing, and the quality of the angling has been sustained over the years despite considerable fishing pressure. Mr. Chapman commented on the resilience of the system with sustained production of good fish over many years, coupled with excellent access. Mr. Colley described this reach of the river as being '*world famous in New Zealand*' for producing abundant fish of a high average size, and for being fishable using a variety of techniques at almost any flow. Mr Hill said the catch rate of fish along this section was exceptional; despite the relative ease of access it still provides a wilderness fishing experience, particularly along the 8km of river downstream from Lake Sumner.

150. Scientific evidence presented by Dr. Young is entirely consistent with anglers' observations that this is an outstanding trout fishery and an outstanding habitat for trout. This reach of river is a lake-outlet river draining the relatively large oligotrophic Lake Sumner. From a national perspective, the "100 Rivers Survey" (Teirney & Jowett 1990) found that of the rivers surveyed, large lake-outlet rivers consistently supported the highest densities of trout nationally and this is a pattern consistent with international studies.
151. The river conditions in the Hurunui River between Lake Sumner and the South Branch confluence clearly support an exceptional abundance of large brown trout as described in evidence presented by Dr. Young. Drift dive surveys completed as part of the 100 Rivers Survey (Teirney & Jowett 1990) found that this reach of the river ranked it amongst the rivers supporting the highest densities of trout in



the country (second highest after the Buller in 1968). Nationally, of the rivers for which long-term (>10 years) drift-dive surveys of trout abundance are available, the Hurunui at the Lake Sumner outlet ranked first of the 24 rivers for which this type of data was available. The Hurunui at Jollie Brook ranked third in this list. The detailed summary of drift-dive surveys completed downstream of the Lake Sumner outlet presented by Mr Ross also supported the argument that the number and average size of trout at this location is exceptional. Both Drs Burrell and Keesing concurred that, on the basis of the evidence presented, trout densities downstream of Lake Sumner could be regarded as nationally outstanding. Evidence on South Branch invertebrate communities collected by Dr. Keesing cannot be extrapolated appropriately to predict conditions downstream of Lake Sumner.

152. Dr. Young presented a review of data on the quality of trout habitat along the reach from Lake Sumner to the South Branch confluence. In the 100 Rivers Survey (Teirney and Jowett 1990), the Hurunui downstream of Lake Sumner ranked 6th overall in terms of food producing habitat and 3rd overall in terms of adult brown trout drift feeding habitat. When these two measures were combined, this reach was the top ranked river in the country. There was no evidence presented to suggest any significant deterioration in conditions that would impact on trout abundance or growth has occurred since the completion of the 100 Rivers Survey. Water temperatures are close to the optimum for trout, and variation is moderated by the upstream presence of Lake Sumner. Consistently high water clarity along this reach is also likely to contribute to the outstanding abundance of trout along this reach. All measured water quality parameters are excellent upstream of the Mandamus flow recorder. Overall, the



high quality of habitat present is entirely consistent with the high average densities and sizes of trout observed and caught by anglers along this reach.

153. Angler usage of the Upper Hurunui as a whole is consistently high based on national angler surveys. Evidence presented by Mr. Unwin indicated that of back-country river fisheries identified in angler surveys, only three other rivers had equal or higher levels of usage. Usage of the Upper Hurunui is dominated by anglers from the North Canterbury region, with proportionately lower levels of usage by international anglers. This pattern might suggest that the river is primarily of regional importance as a fishery. However, given the river's proximity to the large urban centre of Christchurch a high level of usage by regional anglers is not surprising. Further, Mr. Unwin said that nationally 20% of freshwater whole-season angling licences are sold in the North Canterbury region so one would expect there to be a disproportionately high number of North Canterbury anglers fishing the Hurunui.

154. Although angler surveys did not always differentiate between different bodies of water in the Upper Hurunui catchment, available evidence suggests comparatively limited use of the South Branch. Overall the evidence presented was that the mainstem downstream of Lake Summer is the primary reach of angling interest. This is consistent with its ease of access, evidence presented by submitters and expert witnesses, and the Tribunal's own experience during a two day site visit.

South Branch

155. The South Branch is also claimed to offer an outstanding headwater or backcountry remote fishing experience. Expert evidence presented by anglers supports this view; Mr. M. Bell, Mr. Chapman, Mr. Colley, Mr. Hill, Mr. Robinson and Mr Rodgers all commented that the average size of fish caught is

exceptionally high and the water is generally clear allowing fish to be sighted and targeted. The ability to target individual large fish compensates for the relatively lower number of fish that might be encountered in a more productive system. Compared to the North Branch, the area is subject to a significantly lower level of fishing pressure due to restricted access through the Esk Head Station, and offers a wilderness fishing experience not readily available so close to Christchurch. Mr. Chapman indicated this was his preferred stream for taking paying clients with limited time due to the low probability of encountering other anglers.

156. Expert evidence presented by Dr. Young, derived from New Zealand Headwater Trout Study (Jellyman & Graynoth 1994), concurs with the description of the quality and number of fish caught by anglers fishing the South Branch. Dr Young's evidence indicated that the average size of fish caught in the South Branch (mean length 625 mm, mean weight 2.5 kg) was only slightly smaller than the average size of fish caught in the North Branch. On a national comparative basis, the South Branch ranked second highest on the basis of average size of fish in any river for which there were more than 10 records in the New Zealand Headwater Trout Study (Jellyman & Graynoth 1994).
157. Dr. Keesing's data indicated trout numbers were not particularly high during the period he sampled (summer 2009). To some extent, this result is not surprising given that trout numbers are known to vary considerably over short periods of time in headwater streams, and densities of trout in headwater rivers are generally not that high relative to more productive waters.
158. The high average size of fish may be due to the interaction of a number of factors; the obvious presence of a reasonable number of large fish, a relatively low level of angling pressure, and finally comparatively clear water that allows



anglers to selectively target large fish. This combination of factors is present in many other difficult to access headwater rivers. That together with the evidence presented by Dr. Keesing on trout numbers and size, and the relatively low level of angler usage compared to other more popular reaches of the Hurunui, support a conclusion that this reach of river is not nationally outstanding on a stand-alone basis.

Lakes Taylor, Sheppard and Mason

159. Clearly these lakes add to the variety of the angling experience offered by the Upper Hurunui catchment. Evidence presented by Dr. Young confirms that they support brown trout, although the average numbers and size are generally lower than other parts of the Upper Hurunui area. None of the expert angling witnesses provided evidence that would indicate that the lakes are nationally outstanding angling resources in their own right, although Mr. Chapman commented that Lake Mason supports a good fishery. Submissions did not provide any indication that the lakes were nationally outstanding. On the basis of the evidence presented, Lakes Taylor, Sheppard and Mason are clearly not nationally outstanding on a stand-alone basis.

Lake Marion

160. Lake Marion is a small lake that lies to the north and within the catchment of Lake Sumner. It is connected to Lake Sumner by subsurface flows only. Due to this comparative isolation, the lake has not been invaded by any known exotic species. Of particular significance is the absence of introduced trout or macrophytes, and an intact native fish community comprising upland bullies, koaro and longfin eel. Only one other lake is known to contain a similar assemblage of native fish (Lake Chalice). According to Dr. Jellyman, nationally, Lake Marion is one of a very limited number of lakes below the treeline (680m

elevation) that supports a fish and macrophyte community free of introduced species. Clearly, this lake has outstanding natural values.

Hurunui Mainstem; South Branch confluence to Mandamus confluence

161. Evidence presented by expert anglers indicated this section of the river provides good angling, although access is somewhat limited by the distance of the river from the Lake Sumner road and a rugged gorge. Both Mr M. Bell and Mr Colley indicated that good fishing was available if the effort was made to access the river, although Mr. Colley commented that the average size of fish is somewhat less than that found upstream. Evidence presented by Dr. Young supports the view that the average size, and to some degree the abundance of trout, declines with distance downstream from Lake Sumner. This pattern is consistent with what is known of other lake outlet fisheries, both in New Zealand and internationally. Nonetheless, the evidence presented supports the view that the river is a significant trout fishery in its own right. However, the evidence is not sufficiently strong for the Tribunal to recommend that this section of the river is nationally outstanding for trout angling or trout habitat. This section clearly contributes to the passage of fish between the lower and upper reaches of the Hurunui, and hence is important for maintaining trout movement throughout the catchment.

Recognition of outstanding trout fishery and habitat values of the Hurunui mainstem upstream of the South Branch confluence, Lake Sumner & Loch Katrine, & North Branch and also the outstanding values of Lake Marion

162. The Tribunal considers there is strong and consistent evidence to find that: i) the North Branch and contributing waters; ii) Lake Sumner and Loch Katrine; and (iii) the Hurunui mainstem from Lake Sumner downstream to the confluence with the South Branch, collectively:



- (a) provide outstanding habitat for brown trout;
 - (b) support an outstanding brown trout fishery; and
 - (c) provide outstanding angling.
163. Additionally, the intact native ecosystem in Lake Marion is also nationally outstanding, and lies within the Lake Sumner catchment. Preservation of these areas in their natural state is consistent with the aims and purposes of a water conservation order, and would provide protection for nationally outstanding, well-recognised and coherent bodies of water.
164. Whilst other waterways in the Hurunui catchment upstream of the confluence with the Mandamus River undoubtedly provide excellent opportunities for angling or support high populations of trout, they fall short of the standard of nationally outstanding. Counsel for Fish & Game argued that a water conservation order that divided a river reach by reach is contrary to the purpose of water conservation orders, and argued that the catchment upstream of the Mandamus should be protected in its natural state. In contrast, a common view expressed by those opposed to the application was that only a short section of river immediately downstream of Lake Sumner might be viewed as being nationally outstanding as a trout fishery or habitat, and hence wider protection through a water conservation order is not warranted. We agree with counsel for Fish & Game that an overly fragmented approach is not appropriate for a water conservation order, and that a number of reaches contribute collectively to the values of the Upper Hurunui trout fishery. However, we do not agree that protection of the entire catchment upstream of the Mandamus confluence is required to protect these outstanding values. On the other hand, we disagree with the view that the outstanding values of the Hurunui trout fishery relate only



to the river reach associated with the Lake Sumner outlet because this view is too narrow.

Trout movement throughout Hurunui catchment.

165. Dr. Young presented evidence that catchment-wide movement is a common feature of trout, and this movement can play an important role in maintaining the quality of trout fisheries. Dr Young's evidence of extensive catchment-wide movement of trout in the Hurunui River catchment, based on bioenergetic and otolith microchemical data, is entirely consistent with this wider pattern. The presence of "sea-run" fish in the upper catchment was commented upon by various anglers, but was not confirmed by otolith microchemical analysis. However, large migratory lower river trout often have an appearance similar to that of sea-run fish, hence both angler and otolith microchemical evidence are consistent regarding catchment-wide movement of trout. Of particular note was the bioenergetic and otolith microchemical evidence that indicated the largest fish caught in headwater streams had spent time in lower reaches of the Hurunui. Further, otolith microchemical data indicated that a number of tributary streams throughout the catchment and the mainstem of the Upper Hurunui played a role as spawning and juvenile rearing habitat.
166. Given this evidence, the Tribunal finds that the movement of trout through the Hurunui catchment is extensive and contributes to the sustainability of the fishery, and that the Hurunui River downstream of the South Branch confluence contributes to the outstanding trout fishery of the Hurunui mainstem upstream of the South Branch confluence. In recognition of this finding, a prohibition on dams from the South Branch confluence downstream to the Hurunui river mouth, excluding tributaries, would be consistent with achieving protection of the

recognised outstanding trout fishery values of the Hurunui catchment above the South Branch confluence.

Didymo

167. The invasive river diatom didymo (*Didymosphenia geminata*) is present in the Hurunui River. Didymo has now been detected in over 50 South Island rivers, and has only formed significant blooms in a small proportion of these rivers. Various submitters, including Dr. Young, commented that didymo formed substantial mats downstream of Lake Sumner to the South Branch confluence. Downstream of the South Branch confluence, mats of didymo are generally less evident. According to Dr. Young, didymo had spread to the Hurunui by 2007. As noted by Dr. Keesing, once present didymo typically spreads to all available habitats within a river system rapidly, and tends to form the most extensive growths in stable lake-fed rivers with stable beds. Dr. Keesing argued, on the basis of flows required to dislodge didymo in the Waitaki River, flows down the Hurunui were insufficient to dislodge mats of didymo. In rebuttal evidence, Dr. Young and Professor Hughey argued that it was inappropriate to use these figures to infer the level of flow required to dislodge didymo mats in the Hurunui. Given the constrained nature of much of the channel of the Upper Hurunui River, Dr. Young argued that substantially smaller flows would be likely to dislodge didymo relative to the flows required to dislodge didymo in the Waitaki River. Although severe didymo blooms can have a significant negative impact on the aesthetic appeal of a river, no evidence was presented to support the view that didymo has any significant negative impact on trout abundance or size.
168. When the Tribunal visited the river in May 2009, didymo was visible although mats were not particularly extensive. Given the length of time didymo has been in the river, and the speed at which it can grow in favourable conditions, it would



seem likely that various factors, including floods, are currently controlling the extent of didymo growth in the Hurunui River. River users, although noting the presence of didymo, did not comment that their use of the river was significantly compromised by it. Based on this evidence, it would seem likely that the didymo infestation in the Hurunui River has attained a degree of equilibrium, i.e. it is not likely to get significantly better or worse (although for short periods, we recognise that didymo may form significant blooms, or more or less disappear, following periods of low flow or floods respectively). Overall, the Tribunal does not consider didymo to have significantly diminished the values of the river.

Native fish

169. The Tribunal heard evidence from Dr. Jellyman that 12 native fish species are listed on the New Zealand Freshwater Fish Database for the Hurunui catchment. Recent sampling by Dr. Keesing added a further species, banded kokopu (*Galaxias fasciatus*), to that species list. Dr. Jellyman commented that although the assemblage of fish species in the catchment was relatively diverse, it was fairly representative of fish assemblages found in other large Canterbury rivers. Hence, whilst the assemblage was of regional significance, it could not be considered nationally outstanding. No convincing evidence was heard that contradicted this evidence.
170. The exception to the finding of regional significance for the Hurunui native fish assemblage is the intact assemblage of native fish in Lake Marion. This single system is clearly nationally outstanding for native fish, and has been addressed above.

Screening of intakes

171. Fish & Game requested clauses be included in the proposed water conservation order specifying a number of minimum technical standards for fish screens on



off-takes relating to placement, aperture, approach and sweep velocities, bypass channels and maintenance. The stated aim of these clauses was to ensure near-complete exclusion of juvenile sport fish from any new intakes. Although the proposed minimum standards would not apply to existing takes in the short term, concern was expressed by the operators of the Balmoral Scheme that meeting the proposed requirements when applications for re consenting were made would require costly and unnecessary engineering to retrofit the existing off-take.

172. No evidence was presented to indicate that there is a significant problem relating to entrainment of juvenile fish into the Balmoral scheme. Mr. Hillyer, the raceman responsible for the day to day operation of the Balmoral scheme, observed that he could recall seeing only a single fish beyond the screens once when the races were drained at the end of the irrigation season. However, he did concede that some fish could have survived in large siphons that did not drain.
173. Dr. Allibone opined that the Balmoral scheme off-take is well downstream of the main trout spawning areas, hence fish have already grown to a size that prevents passage through the screens by the time they reach this part of the river. The Tribunal considers this is likely to be correct.
174. Mr Williamson presented a NIWA report that concluded that trout were not being entrained into the Balmoral scheme. Mr. Williamson also produced copies of the resource consents under which the scheme operates; condition 1 of one of the consents (File No. CO6C/07429) states, *'A fish screen shall be operated and maintained on the race intake to ensure that fish are prevented from passing into the intake'*. Mr Williamson argued that this was evidence of the strict requirements under which schemes such as the Balmoral scheme operate.



175. Based on this evidence, Mr. Heiler, Chief Executive of Irrigation New Zealand Inc., said that the current mechanisms, both regulatory and the existing fish screen technology, were satisfactory. He also considered that a water conservation order in which minimum technical standards were specified could restrict innovation in the development of new fish screening technologies.
176. Based on the evidence presented, the Tribunal concluded that specifying minimum technical requirements was inappropriate in a high-level protection order such as the proposed water conservation order, and that the particular screening requirements for water takes could be more appropriately developed and detailed under the resource consent process. However, given the significant contribution the waters below the Hurunui/South Branch confluence make to the outstanding fishery above that confluence, the Tribunal recommends that a purposive clause be included in the water conservation order to ensure that a high level of protection for migrating fish is maintained. The recommended wording of this clause is as follows.

When being used, all intakes are to be screened and operated to achieve as far as practicable the following:

- i) Fish that are entrained must not be impinged on a screen.*
- ii) Screens must prevent fish from entering an intake.*
- iii) Once past screens, off-takes must be designed to return fish to an actively flowing water channel which provides passage to the river as soon as practical.*
- iv) Screens are to be maintained to ensure they are effective at all times.*

Section 199(2)(c) ; Characteristics which are outstanding in accordance with tikanga Maori

177. Section 199(2)(c) RMA provides that a water conservation order may provide for;



The protection of characteristics which any water body has or contributes to, and which are considered to be of outstanding significance in accordance with tikanga Maori.

178. Section 2 RMA defines *tikanga Maori* as follows;

"Tikanga Maori" means Maori customary values and practices.

179. The following parties or witnesses appeared in support of the application and presented evidence describing the Maori customary values and practices of the catchment:

- (a) Te Runanga of Ngai Tahu – representing Te Runanga o Ngai Tahu, Te Runanga o Kaikoura, Te Ngai Tuahuriri Runanga and Ngai Tahu Property Ltd.
- (b) Waitaha ki Hurunui represented by Mr Warren Thompson;
- (c) Mr Nukuroa Tirakatene Nash; and
- (d) Ms Di Lucas.

Te Runanga o Ngai Tahu

180. Mark Solomon, the Kaiwhakahaere for Te Runanga o Ngai Tahu, introduced the submission of Ngai Tahu. He explained that pursuant to Section 15(1) of the Te Runanga o Ngai Tahu Act 1996 :

"Te Runanga o Ngāi Tahu shall be recognised for all purposes as the representative of Ngāi Tahu Whānui".

181. The 18 runanga throughout Te Wai Pounamu (the South Island) constitute the members of Te Runanga o Ngai Tahu. The Hurunui catchment represents an area of shared interest between two Papatipu Runanga; Te Runanga o Kaikoura and Te Ngai Tuahuriri Runanga.

- (a) The takiwa of Te Runanga o Kaikoura centres on Takahanga Marae and extends from Te Parinui o Whiti to the Hurunui River, and inland to the main divide. The Rūnanga is the modern day representative of the hapū Ngati Kuri.
 - (b) The takiwa of Te Ngāi Tuahuriri Runanga centres on Tuahiwi Marae and extends from the Hurunui River to the Hakatere River (the Ashburton River) and inland to the main divide. The Rūnanga is the modern day representative of the hapu Ngāi Tuahuriri.
182. Nine Ngai Tahu witnesses presented evidence that described the Maori customary values and practices that they believed are of outstanding significance in accordance with tikanga Maori.
- (a) Mr Paul Horgan, presented submissions concerning the considerations that must be taken into account when applying section 199(2)(c).
 - (b) Mr Ben Te Aika explained key concepts relating to tikanga Maori, including manawhenua, whanaungatanga, and whakapapa;
 - (c) David Higgins told of the creation of the lakes of Te Waipounamu (including Hoka Kura – Lake Sumner);
 - (d) Mr James Mason Russell explained the traditional trail that enabled travel between Mawhera and Taramakau on the West Coast (Te Tai Poutini) over Harpers Pass to Kaiapoi, north of Christchurch on the east coast.
 - (e) Mr Takerei Norton presented some of the traditional place names (wahi ingoa) within the Hurunui catchment, and described some of the physical evidence (including archaeological sites) that attest to the use of the catchment by tangata whenua. He also explained how the Hurunui is a significant tribal boundary.

- (f) Mr Te Marino Lenihan presented evidence of the mahinga kai values of the Hurunui.
- (g) Ms Raewyn Solomon described the environmental philosophies of Ngai Tahu and summarised how Ngai Tahu would like to see Hoka Kura (Lake Sumner) managed in the future.
- (h) Mr Tony Sewell, the General Manager of Ngai Tahu Property Limited, described two of the company's commercial interests in the Hurunui, specifically its ownership of Balmoral Forest and its involvement with Hurunui Water Project Limited and Meridian Energy Limited.

183. Ngai Tahu supported the application for a water conservation order. Ngai Tahu Property Limited filed a submission to be a party to proceedings, but neither supported nor opposed the application. At the hearing, Mr Tony Sewell advised that it would accept the outcome of the submission by Ngai Tahu.

Waitaha ki Hurunui

184. Mr Thompson, with the support of his whanau, represented Waitaha ki Hurunui. In an oral submission he described, in general terms, the cultural significance of the Hurunui Catchment to Waitaha and reaffirmed the statements in their original submission that they supported the application for a water conservation order.

Mr Tirakatene Nash

185. Although Mr Tirakatene Nash was representing surfing interests, in his oral submissions he explained that he was a Tangata Tiaki, as defined in the South Island Fisheries (Customary Fishing Regulations) 1998, mandated by Te Runanga o Kaikoura, and as such was enabled to talk as tangata whenua about the cultural significance of the area to himself and his whanau. He also supported the application for a water conservation order.



Ms Di Lucas

186. Ms Lucas, an expert landscape witness called by the applicants, also presented cultural data within the context of her evidence as a landscape architect.

Maori customary values and practices

187. The Hurunui catchment remains culturally significant, a fact that has been recognised by the Crown in the Ngai Tahu Claims Settlement Act 1998. Schedule 20 of the Act is the Statutory Acknowledgement for the Hoka Kura (Lake Sumner) and Schedule 21 the Statutory Acknowledgement for the Hurunui River.

Whakapapa

188. Mr Te Aika presented the whakapapa of water and explained that according to whakapapa and tikanga, Ngai Tahu are related to the waters of Hurunui. David Higgins added to these statements explaining how the lakes that feed the Hurunui River were created by an ancestor, Rakaihautu. According to the tradition known as *Ka Puna Wai Karikari o Rakaihautu* (The Springs Excavated by Rakaihautu). Rakaihautu is credited with shaping Te Waipounamu and naming many lakes, rivers and mountains during his journeys.

Ara Tawhito

189. Mr Russell described the integral role of the Hurunui River as part of the traditional travel route enabling pounamu (nephrite or more commonly known as greenstone) from Te Tai Poutini to be transported to settlements on the east coast of Te Waipounamu. Ngai Tahu used a complex series of trails that traversed Te Waipounamu. Rivers were described as "highways".
190. Trails were essential to sustaining the economic and social relationships of Ngai Tahu whanau and hapu. The Hurunui trail was of particular significance because of its association with pounamu. Mr Mason described how the principal deposits

- of pounamu are located on Tai Poutini and it was a valuable and tradable commodity. Manufacturing sites were located near the mouth on the south side of the Taramakau River, Mawhera Pa, near the mouth on the south side of the Mawheranui (Grey River), Kotuku, near Moana (Lake Brunner) and at Takataka Pa on Takataka Island in Moana (Lake Brunner).
191. Te Kohaka a Kaikai o Waro, near present day Kaiapoi was the South Island's major trading point. The Hurunui – Taramakau trail, was one of the most traditional trails, because it afforded Ngai Tahu easy access (Noti Taramakau (Harpers Pass) being the lowest of all the passes at 917 metres) from the pounamu resources of Te Tai Poutini to main Ngai Tahu trading Pa near Kaiapoi.
192. The stages of a pounamu heke (journey) were explained to the Tribunal. It began with finding pounamu in the Arahura River and surrounding areas. Pounamu was then transported to Waewae manufacturing sites. It was then
- (a) back-packed from Taramakau to Mawhera Pa,
 - (b) canoed up the Mawheranui (Grey River) and Kotukuwhakaoho (Arnold River),
Moana (Lake Brunner) and Lake Poerua,
 - (c) backpacked overland to the Taramakau River,
 - (d) canoed up the river to the confluence of the Otira River,
 - (e) back packed over Noti Taramakau (Harper's Pass), down the Hurunui River
to Hoka Kura (Lake Sumner),
 - (f) canoed across Hoka Kura and Waitetemoroiti (Loch Katrine),
 - (g) back-packed overland to Lake Taylor or Lake Sheppard,
 - (h) canoed across the lakes,
 - (i) back-packed down the South Branch of the Hurunui River,
 - (j) through Maori Gully to the Waitohi River,
 - (k) across the Waikari Plain,



- (l) through Weka Pass to the Waipara River,
- (m) down river to the Waipara Pa at the mouth of the river and
- (n) then along the coast to Te Kohaka a Kaikai o Waro Pa near present day
Kaiapoi

Mahika Kai

- 193. Mr Russell explained that those journeying over the Hurunui – Taramakau Pounamu Trail had to know the mahika kai resource areas where food could be procured during the journeys. This knowledge (of the available resources, their sources, their seasonality, practices for gathering and processing) was vitally important to the ongoing use the trail by whanau, and for the success of the heke pounamu.
- 194. Foods sourced from Te Tai Poutini would be carried, but once safely over the pass travellers were dependent on being able to replenish supplies from the resources of Hoka Kura (Lake Sumner) and Waitetemoroiti (Loch Katrine). Mr Russell and Mr Lenihan, respectively, described the richness of mahinga kai resources found on the first part of the journey in Te Tai Poutini, and then in the Hurunui catchment.
- 195. Mr Russell also described physical evidence he had observed in 1993 when he visited Hoka Kura (Lake Sumner) and saw an eel weir post at the eastern end of Hoka Kura (Lake Sumner) where it flows into Waitetemoroiti (Loch Katrine).
- 196. Mr Lenihan also described physical evidence the presence of which supports the use of the catchment by Ngai Tahu. He described ladders constructed of harakeke and wood that were found in Maori Gully.
- 197. Mr Norton provided evidence concerning placenames, archaeological sites and artefacts sourced throughout the catchment, all of which confirmed the significance and use of the catchment by Ngai Tahu whanui.

198. When describing the Hurunui today, all witnesses described the importance of the entire catchment and the uninterrupted passage of waters from its source to the coast before emphasizing the importance of protecting Hoka Kura and the upper catchment. The importance of continuity of flows from the mountains to the sea (consistent with the cultural conceptualisation of *ki uta ki tai*), was also explained.
199. Ms Solomon summed up the other natural characteristics of the Hurunui of significance to Ngāi Tahu, including ;
- (a) *the variable character of the river, which is essential to its cultural value and reflects the mauri (or life force) of the awa. No one part of the river is considered to be more significant to Ngāi Tahu than another, notwithstanding differences in the natural, scenic, flow, quality, and use values throughout its length. Ngāi Tahu maintains that all parts of the river are inter-related and actions on one part impact on the spiritual and physical health of all other parts.*
 - (b) *The landscape, water quality, and instream values identified for the upper section of the River and its lakes include*
 - (c) *Significant mahinga kai and recreational fisheries.*
 - (d) *Very high natural landscape character, unspoiled native forest and outstanding wilderness mountain landscape, including one of the most intact tawhai (beech) forest systems left in Canterbury;*
 - (e) *Very high water quality reflecting the rainwater and snow-fed sources from the mountains, largely unmodified by human action;*
 - (f) *A Department of Conservation "mainland island" containing nationally significant conservation and heritage values;*



- (g) *Nationally and regionally important native species habitat, supporting healthy and significant populations of taonga plant and bird species; and*
- (h) *Scenic character ranked as "impressive" and "exceptional".*
200. Consistent with section 199(2)(c) RMA, the Tribunal based its decision in respect of tikanga Maori on the evidence presented by tangata whenua, thus recognising that they are best qualified to comment on their relationship with the river and lakes.
201. The Tribunal accepts the submissions of Te Runanga o Ngai Tahu that characteristics of part of the Upper Hurunui Catchment above the Surveyors Stream confluence, including Hoka Kura (Lake Sumner), Loch Katrine and the North Branch, sustains Maori customary values and practices which are considered to be of outstanding significance in accordance with tikanga Maori (section 199(2)(c) of the RMA).
202. Although Ngai Tahu submitted that a broad and all-encompassing view must be taken when considering the concept of tikanga Maori, the evidence of Mr Mason with respect to the use of the river during the "pounamu heke" was compelling and formed the basis of the Tribunal's determination. Pounamu was and is, highly prized. Today pounamu remains a symbol of mana. Similarly, it is widely recognised that the utilisation of pounamu was at the heart of the culture of Ngai Tahu and formed the basis of a robust economy reliant on trade. The role of Kaiapoi, as the centralised hub from which the rights based system of accessing, gathering, trading and utilising resources across a vast area of the South Island was managed, is also important in determining significance.
203. Once transported from Te Tai Poutini, through trade, pounamu reached regions well beyond the takiwa of Kati Waewae Hapu and indeed beyond the rohe of Ngai Tahu. The significance of the Hurunui in enabling the distribution of



pounamu beyond Te Tai Poutini and Te Wai Pounamu accords it a national significance. The Hurunui River, the lakes Hoka Kura and Waitetemooriti fed by the river and the South Branch of the river were instrumental components of Pounamu Ara Tawhito (pounamu trail) that enabled a resource of immense cultural significance to be distributed throughout New Zealand.

204. The Tribunal concludes on the basis of this evidence that the North Branch, Lake Sumner, Loch Katrine and the Hurunui River from the lake outlet down to the Surveyors Stream confluence at the bottom of Maori Gully as a Pounamu Ara Tawhito, is outstanding in accordance with tikanga Maori. It accepted that other values (such as mahinga kai, physical evidence, placenames) described by witnesses support its functioning as part of a trail enabling trade, exchange and whanaungatanga. While there is evidence that Lake Taylor, the South Branch and the Sisters Stream may have been used as part of the trail, the Tribunal considers it is more appropriate to focus on the parts of the catchment for which supporting evidence of cultural use, occupation and cultural connections was presented.

205. The Environment Court in *Rangitata* said that the national comparative test for a water conservation order;

leads to another difficult issue in that it was the evidence of Ngati Huirapa hapu – the tangata whenua in whose rohe the Rangitata River runs – that it is not tika [correct] to make comparisons across iwi in relation to resources. Thus the national comparison required in other parts of section 199 does not appear appropriate under section 199(2)(c). [paragraph 29]

206. The Tribunal believes that the upper catchment of the Hurunui River does meet the test of being outstanding on a national comparative basis because pounamu was a nationally important resource.

207. Ngai Tahu also sought

- (a) To have the water conservation order extended to include the lower catchment below the Mandamus confluence;
- (b) To have a water quality standard imposed throughout the catchment; and
- (c) To establish a minimum flow for the Lower Hurunui River below the Mandamus confluence.

208. The Tribunal does not accept these submissions. When reviewing the evidence, although customary values and practices associated with the lower catchment were described in general terms, it was in a manner similar to descriptions of cultural associations with other rivers around the country. The specific characteristics of the Lower Hurunui, however, that sustain or contribute to these values were not described. Further, in respect to (b) above, protecting the waters of the upper catchment in their natural state sets a water quality standard.

Section 199(2)(c); Part 2

209. The provisions of Part 2 of the RMA, (sections 6(e), 7(a) and 8), specific to cultural values are consistent with the conservation focus of Part 9.

- (a) With respect to section 6(e) RMA, Ngai Tahu supported the application for a water conservation order on the Hurunui River because they believed it was a mechanism that recognised and provided for their relationship with their ancestral lands, water, sites, waahi tapu and other taonga associated with the Hurunui catchment. As explained in the preceding paragraphs the Tribunal believes that Ngai Tahu presented a compelling argument to recognise and provide for this relationship by way of a water conservation order.
- (b) In relation to section 7(a), recognition within the water conservation order for the protection of the characteristics which are considered to be of outstanding significance in accordance with tikanga Maori, is seen by Ngai Tahu as a

means by which they can exercise Kaitiakitanga over the Hurunui River and Hoka Kura. The evidence of Ms Solomon suggests that other sub-clauses of section 7, in addition to section 7(a), are also relevant to the protection of their cultural values associated with the Hurunui Catchment.

- (c) With reference to section 8, no submissions and no parties to the hearing presented evidence arguing that the making of a water conservation order for the Hurunui River would be contrary to the principles of the Treaty of Waitangi.

Tikanga Maori; other evidence

210. Nothing in the evidence presented by Waitaha ki Hurunui, Mr Tirakatene Nash, or Ms Lucas contradicted or conflicted with the evidence presented by Te Runanga o Ngai Tahu. All the evidence presented by those witnesses or parties supported the making of a water conservation order for the Hurunui. There was no evidence in opposition to outstanding characteristics being recognised in accordance with tikanga Maori.
211. The Tribunal recommends that there be a water conservation order which recognises the outstanding characteristics in accordance with tikanga Maori of the Hurunui from its source near Harpers Pass to the end of Maori Gully, including Hoka Kura (Lake Sumner) and Waitetemoroiti (Loch Katrine). This will recognise part of the pounamu heke. The Tribunal acknowledges that Lakes Taylor and Sheppard, and also on occasions part of the South Branch may have been used as routes for part of the pounamu heke, but in the absence of supporting evidence specific to these areas being presented to the Tribunal, only the waters as described above are appropriate to recognise in the water conservation order.

212. The Tribunal recommends that the water conservation order recognise relevant outstanding characteristics which are specified in the draft order attached.

Section 205 (3) Preference; Mandamus

213. Some submitters in support of the application expressed a preference under section 205(3) in respect of the Mandamus River. The Mandamus is an attractive river with its own history. The evidence related mainly to landscape and the history of settlement of the land rather than the waters of the Mandamus River. The evidence failed by a large margin to establish that the Mandamus River should be included in any water conservation order for the Hurunui.

Section 205(3) Preference; Protection of indigenous birds

Endangered braided river birds

214. The Department of Conservation and Forest & Bird requested preferences to protect claimed outstanding habitat for indigenous birds and contributions to habitat for indigenous birds for various reaches of the Hurunui River and tributaries.
215. Evidence to support the requested preferences was presented by Professor Hughey. The results of recent bird counts presented by Professor Hughey confirmed that the Hurunui River supports significant populations of two threatened bird species that are strongly associated with braided river habitats, namely black-fronted tern (BFT) and black-billed gull (BBG). Index counts of BFT for the years 1978, 2006 and 2008 were 338, 604 and 336 respectively. Index counts of BBG for the years 1978, 2006 and 2008 were 1163, 758 and 1123 respectively. Professor Hughey considered that recent surveys indicated that the Hurunui supported 5-12% of the national population of BFT, and in excess of 1% of the national population of BBG. Professor Hughey noted that although the counts on the Hurunui exhibited year-to-year variation, populations

of both species were relatively stable over a period of several years. The stability of the Hurunui BFT and BBG populations contrast with declines of both species on other rivers, thus raising the significance of the Hurunui populations of BFT and BBG.

216. Professor Hughey presented rankings, based on multiple criteria that related to braided river birds and their habitat, of the Hurunui relative to five other Canterbury Rivers (Rakaia, Rangitata, Waimakariri, Ashley and Ashburton). Rankings of the Hurunui presented by Professor Hughey included work by O'Donnell & Moore (1983) and O'Donnell (2000), plus a re-ranking of these same systems using an ordinal scale to develop a rating of river systems from local to national importance. Based on the earlier rating schemes, the Hurunui had been rated as being of high significance, whereas the other rivers in the Canterbury region were rated as being outstanding. Professor Hughey's later analysis ranked the Hurunui as being of national significance, although it still ranked below the Rakaia, Rangitata and Waimakariri rivers.
217. Dr. Burrell reviewed Professor Hughey's evidence, and based on that review, agreed that the Lower Hurunui met the criteria for outstanding based on the significance of the population of BFT. However, Dr. Burrell considered that the Upper Hurunui was not outstanding for braided river birds.
218. Dr. Keesing critiqued Professor Hughey's evidence, arguing that the Hurunui ranked poorly for birds compared to other wetlands in Canterbury, hence could not be ranked as outstanding.
219. In rebuttal evidence, Professor Hughey considered it inappropriate to compare a braided river with other species-rich habitats such as estuaries and lowland lakes, as Dr. Keesing had done. When questioned, Dr. Keesing agreed that this could be the case, and that the Lower Hurunui may be seen as outstanding

based on the population of BFT, but could not be considered outstanding for any other values related to populations of braided river birds.

220. When reviewing the evidence presented by Professor Hughey, the Tribunal found his evidence to be uncertain in respect of (i) what the 'index count' represented, (ii) the source of estimates of the total national population of BFT, and (iii) how the Hurunui ranked on a national comparative basis against other comparable rivers for BFT. To resolve these questions, the Tribunal sourced and reviewed material cited by Professor Hughey in his Evidence-in-chief, namely *"Hughey, K.F.D. 2006. First statement of evidence of Kenneth Frederick David Hughey on behalf of the Director-General of Conservation"* presented to the Marlborough District Council Hearing Committee in the matter of Trustpower Ltd's Proposed Wairau Valley Hydro Electric Scheme.

221. In Hughey (2006), an appended 'factsheet' on the BFT states: '*Counts from the 1980s indicate the population may number between 1,000-5,000 pairs*'. Hence we infer from this that the national population, stated to lie between 5,000-10,000 birds in Professor Hughey's Evidence-in-Chief, is based on counts from the 1980s. We acknowledge that based on the evidence presented, numbers of BFT are likely to have declined since these counts were completed. In Hughey (2006), counts of BFT recorded from Canterbury and Marlborough rivers are presented in Table 4 (page 40). A total of 6,759 birds are recorded, a figure that is consistent with a total national population of between 5,000-10,000 birds given that the Canterbury and Marlborough regions include a large proportion of New Zealand's braided rivers, and hence BFT habitat. Based on this evidence, the 'index count' referred to by Professor Hughey in his evidence represents the actual number of BFT counted on the Hurunui river. These figures indicate that the Hurunui could be supporting a population of BFT that represents 3-12% of

the national population (using 336 and 604 birds as the lower and upper estimates of the Hurunui BFT population respectively, and 5,000 and 10,000 birds as lower and upper estimates of the national population respectively).

222. Based on the evidence presented and reviewed, the Tribunal agrees that the Hurunui is a significant habitat for braided river birds, particularly BFT. However, to warrant protection in a water conservation order, a waterbody must be recognized as being outstanding on a national comparative basis. Hence, the significance of the Hurunui for the purposes of a water conservation order assessment must include a comparison with other similar river systems.
223. As noted above, Professor Hughey rated the Hurunui as being of national significance based on criteria relating to braided river birds, but ranked it below three other Canterbury rivers, namely the Rakaia, Rangitata and Waimakariri. However, this assessment can only be viewed as a regional assessment of significance. Hughey (2006; Table 4, page 40) presents counts of BFT (acknowledged by all expert witnesses as to be the species of highest significance on the Hurunui) across 15 Canterbury and Marlborough rivers. Although this still only presents a regional review of BFT populations, it does at least draw from a wider area than the evidence presented directly to the Tribunal by Professor Hughey. In Hughey (2006; Table 4, page 40), the Hurunui population of BFT ranks tenth, and hence supports a relatively small proportion of the BFT population compared to rivers such as the Wairau, Rakaia and Rangitata.
224. Given this relatively low ranking at a wider regional level, and the lack of any evidence to support a ranking relative to other comparable rivers at a national level, the Tribunal concludes that on a national comparative basis, the Hurunui



cannot be assessed as being outstanding for indigenous birds, or as making an outstanding contribution to the habitat of indigenous birds.

225. It follows that the Tribunal recommends that the water conservation order does not include minimum flow requirements to protect the habitat of endangered braided river birds. For the sake of clarity, we record that the protection of such habitat may be addressed by Environment Canterbury in its policies and plans.

Section 207 (b); Needs of primary and secondary industry and the community

226. Farming is a primary industry and we heard evidence on the need for water for farms in the area, how it is being met in part by Amuri's Balmoral Scheme and the proposed Hurunui Water Project was described to us.
227. Milk processing is a secondary industry. We were told there is 1 milk processing plant in the Amuri area, but we were provided with little information about it.
228. The *community* is not defined in the RMA. We heard evidence that people in the regional and district communities use the Hurunui River for active and passive recreation, and that economic benefits from using the river's water for irrigation will strengthen the local community in many ways.

Section 207 (b); Farmers and economists evidence

229. A number of farmers gave evidence in opposition to the application. They explained how production on their dryland farms is severely limited by a shortage of water, the rainfall is low over the summer months, they are concerned global warming may result in even less rainfall at important times, there is little groundwater which can be tapped, the shortage of water creates difficult management issues and their farms are much less profitable than they would be with a secure supply of water for irrigation over the dry months of the year. Their evidence was unequivocal. The farmers' evidence was supported by submissions made by other business people in the community.

230. The farmers described how the economic benefits resulting from irrigation would strengthen the community. For example, they said there has been a decline in community activities such as sports teams which would be reversed by increased economic activity resulting in an increase in the population.
231. Economists presented evidence which supported the farmers. The economists demonstrated the economic benefit the community would reap if a reliable supply of water for irrigation allowed increased production, including conversion of some farms to dairying.
232. We agree that a reliable supply of water stored in the Hurunui for irrigation would have the benefits described to us for farmers and it would strengthen the community in a number of ways. We are also cognizant of the facts that the nature of the farms is dryland farms, all farms have to cope with the vicissitudes of the weather and no industry has a right to take water unless that is allowed by the RMA, a plan or a resource consent.

Section 207(b); Amuri's Balmoral Scheme

233. Amuri's Balmoral Scheme takes water from the Lower Hurunui just below the Mandamus confluence to supply water to 25 farms to irrigate 5,200 hectares of land. The water permits to take expire in 2033 and authorize diverting and taking 5,000 litres per second (5 cumecs) of water provided there are certain minimum flows measured at the Mandamus recorder.
234. The Balmoral Scheme was developed by the Ministry of Works under the 1975 irrigation policy. It was transferred to Amuri in 1990. The systems for farming the irrigated land have changed significantly; prior to irrigation less than 10% was used for dairying but now 60% is used for dairying and 20% for dairy support.

235. The Balmoral Scheme is an established part of primary industry in the area, the environment and the community in terms of its economic and associated benefits. There are strong reasons to have regard to it.
236. Section 217(1) RMA provides a water conservation order will not affect existing consents. Ms Wolt, Amuri's counsel, submitted that section is not clear that a water conservation order will not affect an existing consent on an change or cancellation of conditions under section 127 RMA, a review of conditions under section 128 RMA, a transfer (sections 136 and 137 RMA) and surrender (section 138 RMA). Ms Baker for the applicants agreed there is a risk and that it should be avoided by express provision in the water conservation order to ensure existing water permits are not affected by the water conservation order.
237. Amuri opposed the applicants request for the water conservation order to prescribe standards for fish screens. Our recommended water conservation order does not prescribe standards for fish screens. It does contain a purposive requirement which is less stringent than the relevant condition on the current resource consents under which Amuri takes water from the Hurunui.
238. Amuri opposed the minimum flows for the Lower Hurunui sought by the Director-General of Conservation and Forest and Bird. Our recommended water conservation order does not include those low flow requirements requested.
239. We have had due regard in our recommended water conservation order to the importance of the Balmoral Scheme for primary industry and the community. The recommended water conservation order expressly provides that it should not affect or restrict existing resource consents and the terms of the recommended order will not prevent new resource consents being granted for the existing Balmoral Scheme when the current consents expire.



Section 207(b); Hurunui Water Project

240. The current scheme is considering using storage in Lake Sumner and/or a dam in the South Branch. The potential storage in Lake Sumner is 27 to 40.5 million cubic metres of water and in the South Branch about 97 million cubic metres of water. Lake Sumner would be the principal source of water. The South Branch dam would be a supplementary source. The lake behind the South Branch dam would be drawn right down from time to time; i.e. all the water stored behind the dam would be released. How often this may occur is uncertain, but Dr Ward a witness for Hurunui Water Project, said it may occur once every 10 years (assuming the use of Lake Sumner as a primary storage). The command area of the Hurunui Water Project is estimated to be 54,340 hectares.
241. There is no doubt that farmers want water to increase production and also that irrigation on this scale would result in significant economic benefits for farmers and the community. As recorded above, we have concluded this need does not displace our findings in relation to Lake Sumner and its outlet since a weir would have serious adverse effects on their natural character. The issue left open above is whether the water and sediment from the South Branch is so integral to the outstanding kayaking in the mainstem that the South Branch should not be dammed or whether preservation of the South Branch flow and sediment transport is displaced by the needs of industry for the dam on the South Branch.
242. Mr T. D. Heiler gave evidence in his capacity as chief executive of Irrigation New Zealand Limited. He is highly qualified and has a great deal of experience in irrigation. Mr Heiler was called by Amuri to give evidence principally in opposition to the applicants' request for the water conservation order to prescribe standards for fish screens, but he addressed a wide range of issues. Mr Heiler was a forthright and candid witness. He described the West Coast water

available for irrigation in Canterbury as an *alpine treasure*. He supported strongly storage of this water, but said it is unlikely consent would be granted to store it in the mainstem of the remaining free-flowing rivers and it should be stored in tributaries.

243. The principal sources of the Hurunui are its North and South Branches. A dam on the South Branch will have a significant short term effects on flow, especially by reducing flow when the dam is being replenished, and long term effects by trapping sediment.
244. The Lake Sumner outlet catchment is the principal source of water for the Hurunui mainstem below the lake. Mr Stewart said the South Branch catchment has a similar area, but it produces only just over half the flow. Thus a dam on the South Branch would not affect the principal source of water used for kayaking in the mainstem.
245. The flow characteristics of these 2 sources are very different. Lake Sumner has a moderating effect on flows from its catchment. Mr Stewart said the South Branch's annual floods range from 87 cumecs to 400 cumecs which is significantly higher than the flood range at the Lake Sumner outlet. Thus a dam on the South Branch would reduce to some extent the "benefit" to kayakers of these flood waters flowing down into Maori Gully.
246. We do not have sufficient evidence to assess the extent to which flood flows from the South Branch into the mainstem would be reduced. The proposed dam site is upstream of the North Esk which appears to be a reasonably large tributary but we do not have evidence on its contribution to the flow from the South Branch. We have very little information on the design and manner of operation of the proposed dam both of which would have a bearing on flows from the South Branch into the mainstem.



247. Mr Stewart presented a graph which showed hydrographs of the 1991 year for the Hurunui South Branch at Esk Head Station and the Hurunui at Mandamus. He said;
- "It shows the South Branch as being much more subdued in its hydrograph than the Mandamus flow and does not have nearly as many of the smaller rises that occurred at the Mandamus site. This is likely due to the fact that only a small part of its catchment lies in the Southern Alps and will not receive the same smaller rainfall events as does the Lake Sumner catchment. It also shows that the South Branch can provide more than half the flow of the smaller flood peaks and does make a significant contribution to the larger flood peaks."*
248. The evidence shows there will continue to be significant variations in flow in Maori Gully for kayakers even if there is a dam in the South Branch.
249. We did not receive any evidence which established that the reduction in sediment caused by a dam being built on the South Branch would have a significant effect on kayaking in the mainstem of the Hurunui.
250. The effects of a dam on outstanding characteristics of the Hurunui, including kayaking in Maori Gully, would be taken into account under section 104 and Part 2 RMA when the consent authority is assessing an application for a dam on the South Branch. The criteria are different to those for a water conservation order, but nonetheless they are effects which have to be taken into account.
251. While a dam on the South Branch would have an effect on the outstanding kayaking in Maori Gully, we are not able to conclude on the evidence before us that it would necessarily result in loss of the outstanding characteristic, and having regard to the needs of industry and the community for water storage we recommend that the water conservation order should not preclude a dam on the South Branch. This is not a finding that there should be a dam on the South

Branch. That is an issue which should be left to be determined in the context of the water conservation order on the mainstem and under the RMA and the policies and plans of both Environment Canterbury and the Hurunui District Council.

Section 207 (b); Power generators

252. A dam on the South Branch would create an opportunity to generate hydro-electricity. Electricity generators need renewable sources of energy and the community needs electricity.
253. Mr Mead from MainPower told us that initial studies indicate that any hydro-generation related to the irrigation project would be economically marginal so technical studies have not progressed to a feasibility level. Some pre-feasibility studies have been done. They indicate that for our purposes the amount of electricity which would be generated is relatively insignificant and it carries little weight in our deliberations under Part 9.
254. Meridian Energy Limited's counsel, Ms Appleyard, said that Meridian's main reason for involvement in the proceedings was to oppose preferences sought by the Director-General of Conservation, Forest and Bird and others seeking minimum flows in the Lower Hurunui. Meridian is considering using the Lower Hurunui to generate electricity. It is concerned that minimum flow requirements may preclude options for generating electricity. We are recommending in this report that the water conservation order does not include the minimum flows requested in the preferences.
255. Meridian also requested that the definition of "dam" in the draft water conservation order be amended so it does not include structures which prevent the passage of fish. The Tribunal considers this amendment would be too sweeping; it would allow dams with fish ladders. The Tribunal considers fish



ladders on dams would not be an effective method for protecting the contribution the waters in Schedule 2 make to the outstanding fisheries characteristics of the waters in Schedule 1.

256. TrustPower Limited's counsel, Ms Burkhardt, said TrustPower is fundamentally opposed to the application for a water conservation order. She submitted that the Tribunal should give considerable weight to the needs of industries and communities, to the planning framework, and recognise the national significance of renewable energy. In respect of the last point, Ms Burkhardt said TrustPower agrees that the Tribunal is not required by section 207(c) to have regard to the draft National Policy Statement for Electricity Generation because it is not in its final form. In respect of the other matters, we have had regard to them in accordance with the RMA.

Section 207(b); Evidence of other members of the community

257. A number of members of the community in addition to farmers gave evidence, but in support of the application. One such was Rosemary Snoyink who lives at Glentunnel and her evidence was reasonably representative.
258. Mrs Snoyink told us she does not fish and does not have the nerve to kayak except on a calm lake. She enjoys rivers for their intrinsic values; for what they are. She wants to take nothing from them and wants them preserved for present and future generations.
259. She has tramped over Harpers Pass and camped with her family in the Hurunui. She joined a hunting party which went by boat from Loch Katrine through the canal; while she does not like to use the word *pristine* she said the lake and canal are "as good as it gets". They boated to the outlet which she described as "....an area of overwhelming scenic beauty, outstanding natural landscape and where the water sparkles like crystal."

260. Mrs Snoyink is a keen birder. She visits the Hurunui to observe a wide variety of birds.
261. Mrs Snoyink said she has witnessed the slow deterioration of many Canterbury rivers, especially over the last 10 years with the recent increase in dairying. Her home at Glentunnel is on the upper reaches of the Selwyn River. She referred us to an article about the decline in water in the lower Selwyn which in early March 2009 had signs warning people to avoid contact with the little water left because of a toxic algal bloom. Mrs Snoyink told us that for the first time in her memory signs warning of a toxic algal bloom appeared in the upper Selwyn which is the main source of drinking water for Whitecliffs, Glentunnel and Coalgate. We did not receive any scientific evidence on the cause of these blooms.
262. Mrs Snoyink was prompted by Mr Canard's evidence that *no major Canterbury river flows uninterrupted to the sea, except the Clarence* to research the issue. She listed 11 rivers from which there are significant takes. She said there is no effective water management in Canterbury and water is grossly over-allocated in some areas.
263. Mrs Snoyink concluded by saying only a water conservation order will preserve the Hurunui for future generations. Other people presented evidence consistent with Mrs Snoyink's.
264. This evidence from Mrs Snoyink and other members of the community is consistent with a water conservation order for the Hurunui.

Section 207 (c); RMA policies and plans.

Purpose of a water conservation order

265. We reiterate that the purpose of a water conservation order in section 199 RMA we are to have particular regard to under section 207 RMA is distinctly different



to the purpose of the RMA in section 5 which applies to the relevant RMA policies and plans.

266. It is pertinent to refer to the Environment Court's conclusion in [30] of its *Rangitata* decision;

Collating the various appropriate definitions we conclude that the meaning of section 199 which is most relevant here is that the purpose of a water conservation order is to restrict the Regional Council'

267. Mr Smith, counsel for Environment Canterbury, said it is a neutral party which neither supports nor opposes the application. He submitted that;
- Essentially the Council's submission is its planning instruments are a sophisticated response to a complex environmental situation. As such it might reasonably be said that its planning framework strikes a constructive balance between protection and the provision for the needs of primary and secondary industry and the community; albeit that it has done so under Part 2 rather than Part 9.*

268. Mr Smith has highlighted correctly that Environment Canterbury's policies and plans strike a balance between protection and use, and they are made under Part 2 RMA. The Tribunal is acting under the special statement of purpose in Part 9 and it is not to have regard to requirements of Part 2 which are inconsistent with Part 9.

269. The theme of a number of submissions in opposition was that the Tribunal should leave the issues to be decided in Environment Canterbury's policies and plans. This is not an option if a case for a water conservation order is made out; people can apply at anytime for a water conservation order and the applicants are entitled to have their application determined under Part 9 with its own statement of purpose.

270. In any event, Environment Canterbury's policies and plans have yet to strike the balance under Part 2. The Transitional Regional Plan is very dated and its proposed plans are at an early stage of development.

Section 207(c); New Zealand Coastal Policy Statement

271. The NZCPS does not contain any particular policies which we need to have regard to in this case.

Section 207(c); Canterbury Regional Policy Statement

272. The RPS became operative in 1998 and it is currently under review. Its provisions were described to us in detail by Ms Marx a planner called by the applicants. She referred us to Chapter 9 which addresses water issues and it specifically refers in the Introduction to the Hurunui River. She said the Introduction states that the high water quality of the upper catchments, high country lakes and braided rivers are a valuable feature of Canterbury, and that a number of waterbodies have high natural character and recreational use potential. She pointed out that the Introduction says it may be desirable to sustain the natural characteristics of these water bodies and lists the potential water bodies subject to investigation, including the Hurunui River above Mandamus and many high country lakes that are not presently controlled for hydro-electricity storage.

273. Thus the RPS which is itself under review recognises the high natural character of the high country lakes and rivers and says there are to be further investigations.

Section 207(c); Canterbury Transitional Regional Plan

274. The Environment Canterbury Transitional Regional Plan does not contain any particular provisions which we need to have regard to in this case. It is well overdue for the review which is now underway.



Section 207(c); Canterbury Proposed Natural Resources Regional Plan Chapter 5 and Variation 8

275. The PNRRP contains provisions relevant to these proceedings, including identification of some water bodies which are natural state and those with high naturalness, and rules for taking, damming, diverting and discharging to water.
276. The PNRRP has been publicly notified. The officer's report has recommended changes to the PNRRP. Environment Canterbury has heard submissions on the PNRRP, but it has not yet released its decisions.
277. Proposed Variation 8 reviews minimum flows on rivers in the Hurunui area to take into account the needs of both instream values and irrigators. Submissions on Variation 8 have yet to be heard.
278. The provisions of Chapter 5 of the PNRRP are complex, there are inconsistencies which have yet to be resolved and it is at a very early stage in the process so little weight can be given to it. These are not criticisms of the PNRRP, simply the current reality. While we have had regard to the PNRRP, at this stage it neither provides us with any material assistance nor displaces any of our conclusions on outstanding amenity and intrinsic values.
279. While we have dealt with this requirement briefly, we wish to acknowledge the valuable assistance provided by planning witnesses who described the current state of the planning instruments to us.

Section 207(c) Hurunui District Plan

280. The Hurunui District Council filed a submission in opposition to the application. Its counsel, Mr Caldwell, presented submissions in opposition and he called as witnesses the Mayor, Mr Yeats the Council's engineering services manager, Ms Dawson a consultant planner and Mr Copeland a consultant economist. The submissions and evidence have been taken into account by us in our



assessment of the issues. In particular we have had regard to the effects on the needs of industry and the community when considering whether a water conservation order should preclude a dam on the South Branch.

281. Under section 207(c) we are to have regard to the Hurunui District Plan which became operative in 2003, and was last amended in 2008. It is a planning instrument. A district council has jurisdiction in relation to land and the surface of water bodies so the provisions of a district plan are limited to these matters.
282. The District Plan in Part II identifies the Hurunui Lakes Area as an "Environment of Special Concern". As one would expect, it does not address the values of the river and the right to take water, dam water, etc., all of which are addressed in Environment Canterbury's PNRRP.
283. We have had regard to the District Plan, but its provisions have not had a material effect on our recommendations. Again we record that this is not a criticism in any way of the District Plan since it is not intended to address in detail the issues we are considering.

Overall Evaluation

284. The Tribunal considers that the applicants have established a strong case for a water conservation order for the Hurunui, but one which is less extensive than they applied for. The Tribunal recommends that the order include in Schedule 1 as waters to be preserved in their natural state the North Branch, Lake Sumner, Loch Katrine, Lake Marion, the upper South Branch and the Hurunui River from the Lake Sumner outlet down to the Surveyors Stream confluence at the bottom of Maori Gully. The applicants applied for the Hurunui down to the Mandamus confluence to be recognised in Schedule 1 but the Tribunal concludes the section from Surveyors Stream to the Mandamus confluence lacks the necessary outstanding qualities on a national comparative basis.

285. The recommended order excludes the South Branch below the Masons Stream confluence from Schedule 1 because it lacks the requisite outstanding qualities. The recommended order also excludes the lower South Branch from Schedule 2 despite its waters contributing to the outstanding kayaking characteristics of the mainstem. The Tribunal has reached this decision on Schedule 2 taking into account on the limited evidence before it that a dam on the South Branch will not necessarily diminish the outstanding kayaking characteristics of the mainstem of the Hurunui River and by having regard to the needs of the farming industry and the community. The Tribunal's recommended order will not preclude an application for a dam on the South Branch from being considered. While the recommended order does not preclude consent for a dam on the South Branch this is not tantamount to a finding that a dam can be built on it without unacceptable adverse effects on the outstanding characteristics of the mainstem. Whether the effects are acceptable or not can be determined in the context of an application for a resource consent for the dam.
286. The draft water conservation order includes in Schedule 1 tributaries of the Hurunui River above the Surveyors Stream confluence. However, looking at the evidence overall the Tribunal considers Lakes Taylor and Sheppard should be expressly excluded from Schedule 1 because they lack the outstanding characteristics for Schedule 1 waters. Also they should not be included in Schedule 2 because their contribution to the outstanding characteristics of the Hurunui River is limited and the no damming restriction on Schedule 2 waters is inappropriate for lakes. The Sisters Stream is included in Schedule 1 waters along with other tributaries of varying sizes.
287. The Tribunal recommends that the preferences of some submitters for the Mandamus River to be included in the water conservation order, for the order to

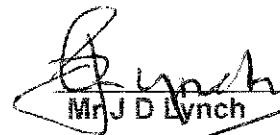


contain minimum flow provisions to protect indigenous river birds and for the order to protect native fish in the Hurunui River all be declined. The evidence presented to the Tribunal does not support them.

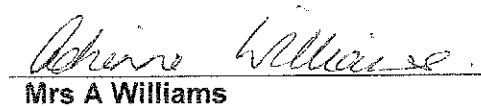
Draft Water Conservation Order

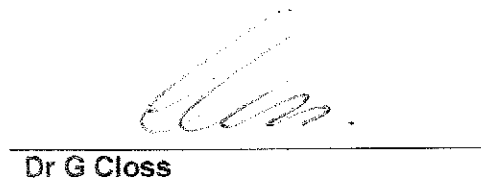
288. The Tribunal is required by section 208 RMA to include in this report a draft of the water conservation order it is recommending. The draft is attached as appendix 1.

DATED this 5th day of AUGUST 2009.


Mr J D Lynch


Dr G Tipa


Mrs A Williams


Dr G Closs

APPENDIX 1
WATER CONSERVATION ORDER
RECOMMENDED BY THE
SPECIAL TRIBUNAL

Order

- 1) Title—This order is the Water Conservation (Hurunui River) Order 2009.
- 2) Commencement—This order comes into force 28 days after the date of its notification in the *New Zealand Gazette*.
- 3) Interpretation—In this order, unless the context otherwise requires:

“Act” means the Resource Management Act 1991

“damming” means the impounding of all or part of the natural flow of any water that may involve an associated temporary or permanent structure, and includes any intake or deflection structure, structure in the river bed or modification of the river bed that prevents the passage of any fish.

“waters” means the lake, tributaries and river identified in Schedules 1 and 2 and any hydraulically connected waters which if abstracted from, would result in a calculated stream depletion effect greater than 5 l/s on the surface waters.
- 4) Waters to be retained in natural state - Because the waters specified in Schedule 1 are in their natural state, and because of the outstanding characteristics, features, and values identified in Schedule 1, the waters specified in Schedule 1 are to be retained in their natural state, including but not limited to the quality, quantity, level and rate of flow of the waters, subject to clauses 8 and 9.
- 5) Waters to be protected as contributing to outstanding characteristics —Because of their contribution to outstanding characteristics features and values identified in Schedule 2, the waters specified in Schedule 2 are to be protected in accordance with the relevant conditions in clauses 6, 7, 8 and 9.
- 6) Restriction on damming of waters — Subject to clauses 8 and 9, no resource consent may be granted or rule included in a regional plan authorising the damming of waters specified in Schedule 2.
- 7) Requirement for fish screens — No water permit may be granted or rule included in a regional plan in respect of the taking or diversion of the waters specified in



Schedule 2, or taking or diversion of the waters specified in Schedule 1 as exempted by clauses 8 and 9, unless all associated intakes are screened and maintained to achieve as far as practicable the following;

- a) Fish that are entrained must not be impinged on a screen;
 - b) Screens must prevent fish from entering an intake;
 - c) Once past screens, off-takes must be designed to return fish to an actively flowing water channel which provides passage to the river as soon as practical;
 - d) Screens are to be maintained so they are effective whenever they are operating
- 8) Scope of order—(1) This order does not limit sections 14(3)(b) and (e) of the Act relating to the use of water for an individual's reasonable domestic needs, or for the reasonable needs of an individual's animals for drinking water, or taken or used for fire-fighting purposes, provided that all intakes (other than those for emergency fire-fighting) be screened and maintained to comply with Clause 7, to prevent the entrapment or impingement of fish.
- (2) Subject to sub-clause (3), this Order does not restrict or prevent the grant of resource consents or a rule being included in a regional plan for the purpose of:
- (a) research into, protection, restoration, rehabilitation or enhancement of fisheries and wildlife habitats; or
 - (b) the construction, removal, maintenance or protection of any road, ford or bridge, or the maintenance or protection of any network utility operation (as defined in section 166 of the Act); or
 - (c) the protection of human or animal health.
- (3) No resource consent may be granted or rule included in a regional plan that would allow activities specified in sub-clause (2) if exercise of any such resource consent or rule would compromise the protection of the outstanding characteristics and features identified for the waters specified in the Schedules.
- 9) Exemptions—Nothing in this Order prevents the grant of a discharge or water permit that would otherwise contravene conditions set out in this order if:
- (a) a consent authority is satisfied that:
 - (i) there are exceptional circumstances justifying the grant of a permit; or
 - (ii) the permit is for a discharge that is of a temporary nature; or
 - (iii) the permit is for an activity that is associated with necessary construction and maintenance work for works and structures not otherwise prohibited by this Order; or
 - (iv) the permit is for discharge of herbicides for control of introduced plants; and



(b) the exercise of any such permit would not compromise the protection of the outstanding characteristics and features identified for the waters specified in the Schedules.

10) Existing consents – nothing in this Order shall affect or restrict any resource consent granted prior to this Order coming into force in respect of the waters, until the expiry of that consent.

Schedule 1

Waters to be Retained in Natural State

Item	Waters	Outstanding Characteristics or Features	Conditions to Apply
1 North Branch, Lake Sumner and Loch Katrine	North Branch, Lake Sumner and Loch Katrine and their tributaries	Natural character, wild and scenic; habitat for brown trout; brown trout fishery and angling (excluding tributaries), Contribution to brown trout fishery	Preservation in natural state (clause 4)
2 Lake Marion	Lake Marion and its tributaries	Natural character, wild and scenic; indigenous fauna	Preservation in natural state (clause 4)
3 South Branch	South Branch above its confluence with Masons Stream	Natural character	Preservation in natural state (clause 4)
4. Mainstem	Mainstem from Lake Sumner outlet to the confluence with Gabriel's Stream and all tributaries	Natural character, wild and scenic;	Preservation in natural state (clause 4)

		habitat for brown trout; brown trout fishery (excluding tributaries); angling (brown trout) (excluding tributaries);	4
5. Mainstem	Maori Gully	Natural character, wild and scenic	Preservation in natural state (clause 4)
6. Mainstem	Mainstem from the Gabriel's Stream confluence to the South Branch confluence including all tributaries excluding the South Branch and all its tributaries and also excluding Lakes Taylor and Sheppard.	habitat for brown trout; brown trout fishery (excluding tributaries); angling (brown trout) (excluding tributaries);	Preservation in natural state (clause 4)
7. Mainstem	Mainstem from Sisters Stream confluence to Surveyors Stream confluence including all tributaries excluding the South Branch and all its tributaries and excluding Lakes Taylor and Sheppard.	Mainstem; White water recreation including kayaking, rafting and bugging. Tributaries; contribution to white water recreation	Preservation in natural state (clause 4)
8. Mainstem	North Branch, Lake Sumner, Loch Katrine, mainstem from the Lake Sumner outlet to Surveyors Stream including all tributaries excluding the South Branch and all its tributaries and	Outstanding cultural values (including spiritual and historical) in	Preservation in natural state (clause 4)



	excluding Lakes Taylor and Sheppard.	accordance with tikanga Māori	
Hydraulically connected groundwater	Hydraulically connected groundwater to the waters specified in items 1 – 8 of Schedule 1	Contribution to natural state waters	Preservation in natural state (clause 4)

Schedule 2

Waters to be protected for their contribution to outstanding characteristics

Item	Waters	Outstanding Characteristics or Contribution to Outstanding Features	Conditions to Apply
1	The mainstem of the Hurunui River from its confluence with Surveyors Stream down to the sea	Contribution to: Brown trout habitat (in the form of fish passage); brown trout fishery;	Prohibit damming (Clause 6); Requirement for fish screens (Clause 7)

