

**BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA**

ENV-2018-CHC-26 to 50

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of appeals under clause
14 of Schedule 1 to the
Act relating to the
proposed Southland
Water and Land Plan

BETWEEN **WAIHOPAI RŪNAKA,
HOKONUI RŪNAKA, TE
RŪNANGA O AWARUA,
TE RŪNANGA O
ORAKA APARIMA, and
TE RŪNANGA O NGĀI
TAHU (collectively NGĀ
RŪNANGA)**

**Appellants in ENV-2018-
CHC-47**

AND **SOUTHLAND
REGIONAL COUNCIL**

Respondent

**STATEMENT OF EVIDENCE OF TREENA LEE DAVIDSON
ON BEHALF OF NGĀ RŪNANGA (WAIHOPAI RŪNAKA, TE RŪNANGA O AWARUA,
TE RŪNANGA O ŌRAKA APARIMA, AND HOKONUI RŪNAKA) AND TE RŪNANGA O
NGĀI TAHU**

Planning

15 February 2019

 **Simpson Grierson**
Barristers & Solicitors

Simpson Grierson
J G A Winchester
Telephone: +64-4-924 3503
Email: james.winchester@simpsongrierson.com
DX SX11174 PO Box 2402
SOLICITORS
WELLINGTON 6140

TABLE OF CONTENTS

INTRODUCTION	2
SCOPE OF EVIDENCE.....	3
EXECUTIVE SUMMARY.....	4
NGĀ RŪNANGA APPEAL AND 274 MATTERS IN THIS EVIDENCE	6
STATUTORY FRAMEWORK	7
MEASURING WATER QUALITY FROM 2010.....	12
SPECIFIC PROVISIONS.....	16
THE EFFECTS OF REMOVING PHYSIOGRAPHIC ZONES FROM THE PLAN RULES AND HOW THE PLAN MANAGES WATER.....	34
NGĀI TAHU POLICIES.....	37
DEFINITION OF WETLAND AND NATURAL WETLAND	40
CONCLUSION	41

MAY IT PLEASE THE COURT

INTRODUCTION

1. My name is Treena Lee Davidson. I hold a Masters in Resource Management from Lincoln University. I have 19 years' experience in planning and policy with a predominant focus on fresh water and land management. I am a full member of the New Zealand Planning Institute (**NZPI**).
2. I have been in the role of Senior Environmental Advisor with Te Rūnanga o Ngāi Tahu for three years. Prior to that I have worked in various roles directly related to environmental planning, particularly fresh water management. Most recently I worked as a senior planner with the Canterbury Earthquake Recovery Authority where I worked on matters relating to land use recovery in greater Christchurch and the Lyttelton Port Recovery Plan.
3. Prior to that I worked as a Senior Analyst, Environmental Issues for Te Puni Kōkiri for two years where I was engaged in the development of the 2014 amendments to the National Policy Statement for Freshwater Management (**NPSFW**) and across government on Māori rights and interests to fresh water. I was for five years the team leader of Water and Soil Planning at Northland Regional Council where I settled appeals on the Regional Water and Soil Plan. I also saw the Water and Soil Plan through its first plan change process and established the foundations for its second. I started out my career as a planning advisor for Ngātiwai Trust Board, assisting in providing planning advice to Councils, landowners and developers in Northland.
4. I assisted Ngā Rūnanga with drafting its submission on the review of the Proposed Southland Water and Land Plan (**pSWLP**) and oversaw the further submission process on the pSWLP. I gave expert planning evidence for Ngā Rūnanga at the Council hearings on the pSWLP.
5. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and I agree to comply with it. My qualifications are set out above. I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

6. I note that whilst I am employed by Te Rūnanga o Ngāi Tahu, I am bound by the Code of Conduct and professional ethics of NZPI, and am required to be impartial and unbiased in my professional opinions expressed.

SCOPE OF EVIDENCE

7. My evidence will address the following points that underpin the appeal by Ngā Rūnanga and are discussed in the evidence of Mr Skerrett, Ms Cain and Dr Kitson:

- (a) poor environmental quality in the past (including the quality of freshwater ecosystems) has had significant impacts on Ngāi Tahu ki Murihiku;
- (b) environmental quality in Southland has degraded over the last 10 years and this further impacts on Ngāi Tahu ki Murihiku;
- (c) Ki uta ki tai and Te Mana o Te Wai are the specified concepts on which this pSWLP is founded and these need to be applied throughout the pSWLP;
- (d) the degraded state requires the need for a precautionary approach that puts the needs of the environment first;
- (e) clear direction is needed in the objectives and policies to ensure that further degradation of water quality does not occur; and
- (f) it is important to ensure the rights and interests of Ngā Runanga¹ are not ignored, eroded or impeded.

8. More specifically, I will discuss the following matters in the context of the pSWLP:

- (a) the relevant statutory framework, including Part 2 of the Resource Management Act 1991 (RMA) and its relevance to matters raised in cultural evidence;
- (b) expectations to maintain and improve how the pSWLP gives effect to the statutory framework;
- (c) the pSWLP's preference for one type of use over others; and

¹ I have used Ngā Rūnanga in reference to the appeal being a joint appeal by Te Runanga o Ngāi Tahu and Ngāi Tahu ki Murihiku. Mr Skerrett discusses who Te Rūnanga o Ngāi Tahu and Ngāi Tahu ki Murihiku are in his evidence [paragraphs 24 – 28].

- (d) the effects of removing Physiographic zones from the pSWLP rules and how the plan manages water; and
- (e) matters relating to Ngāi Tahu policies that have been raised in others appeals which Ngā Rūnanga have joined as a section 274 party under the RMA.

9. In preparing my evidence I have reviewed:

- (a) the notified pSWLP;
- (b) the Section 32 Report and associated technical reports;
- (c) relevant appeals;
- (d) the Section 42A Report;
- (e) the NPSFW (with the 2017 amendments) and its predecessors 2014 and 2011;
- (f) the operative Southland Regional Policy Statement 2017;
- (g) Te Tangi a Tauria, Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan, 2008;
- (h) the submission and further submission and appeal by Ngā Rūnanga on the notified proposals (**Ngāi Tahu Submission and Further Submission**);
- (i) the Regional Water Plan for Southland, April 2010;
- (j) the evidence in chief prepared by Environment Southland; and
- (k) the other statements of evidence for Ngā Rūnanga for the Topic A hearing.

EXECUTIVE SUMMARY

10. I have been asked by Ngā Rūnanga to provide planning evidence on their appeal to the SWLP.

11. I consider there is sufficient evidence that water quality and overall environmental quality is degrading in Southland. When establishing an overall direction, the pSWLP should not be considered an interim step in terms of giving effect to the higher order documents such as the NPSFW. While the freshwater management unit (**FMU**) component might have been consciously deferred, this document is still required to show how it does and will give effect to the NPSFW.

12. Dr Kitson's evidence leaves little doubt that the quality of water in Southland, and the environment more generally, has degraded in the last ten years and impacted on Te Mana o te Wai. Accepting the status quo at 2016 increases the difficulty reversing the trend and achieving improvements and risk further degradation of water quality in Southland. This suggests to me that, as a bare minimum, bold and decisive provisions in the pSWLP to halt and/or reverse the decline in water quality (and hence give effect to the NPSFW) are required.
13. I consider amendments to Objectives 2, 8, 9A, 9B, 10, 13 and 18 in the pSWLP have weakened what was intended when the pSWLP was notified. Specific recognition of the importance of primary production and infrastructure in the pSWLP has created an imbalance which undermines recognition of Te Mana o te Wai and Ngā Rūnanga values. The evidence suggests amendments to wording that reinstate ki uta ki tai and Te Mana o te Wai as core to the pSWLP's intent.
14. The inclusion of physiographics in the pSWLP aligns with ki uta ki tai in the NPSFW and resonates with Ngā Rūnanga as a tool which looked at what the land can cope with and how this determines farming practices. Environment Southland's decision to remove physiographics from the pSWLP rules and amend the wording of the policies has weakened the intent of including physiographics. While I do not consider reinstatement of physiographics in the rules (as notified) is appropriate in the present circumstances, I do consider there is merit in the Court considering the detail of the physiographic policies to send a clear message that intensification of or new dairy farming and wintering on some land types should not occur.
15. With regard Ngāi Tahu matters that Ngā Rūnanga are a section 274 party to:
- (a) I consider it is appropriate to retain the term "interests" in Policy 1 to give effect to Objectives D1 and Policy D1 of the NPSFW.
 - (b) I suggest that "sustaining" taonga species and their habitats may be more appropriate than them being "protected" in Objective 15.
 - (c) I acknowledge that Royal Forest and Bird Protection Society (**Forest & Bird**) are seeking that Waituna Lagoon is treated as a specific catchment, but I do not suggest a preference for it being a part of Maitara FMU or a separate FMU. I do consider that, given the degraded state of Waituna, it is most important to ensure that

discussions on the Lagoon are not lost or diminished by discussions on the Maitara River catchment.

NGĀ RŪNANGA APPEAL AND 274 MATTERS IN THIS EVIDENCE

16. The specific Ngā Rūnanga appeal points of relevance to this hearing and discussed in my evidence are:

Appeal point	Provision of proposed plan that appeal point relates to
1	General – water quality provisions in proposed plan
2	General – physiographics provisions in Plan
4	General – removal of the term historic heritage from Objectives and policies
5	Objective 2
6	Objective 8
7	New Objective 9A
8	New Objective 9B
9	Objective 10
10	Objective 13
11	Objective 18
13	Policies 5, 9, 10, 11 and 12

17. I my evidence I have also included discussion of the following matters to which Ngā Rūnanga are a section 274 party. These matters are either of direct relevance to Ngā Rūnanga or are included for completeness of discussion:

Appellant to	Provision of proposed plan that section 274 notice relates to
Royal Forest and Bird Protection Society of NZ (Forest and Bird)	Policy 46 Waituna Lagoon
Southland Fish and Game Council (Fish and Game)	Objective 15 and Policy 3
Federated Farmers of New Zealand Southland (Federated Farmers)	Policy 1
Meridian Energy	New Objective renewable energy

STATUTORY FRAMEWORK

Resource Management Act 1991

18. The purpose of the RMA as set out in section 5 is of direct relevance to the appeal of Ngā Rūnanga. In particular the need to sustain the potential of natural and physical resources for the reasonably foreseeable needs of future generations and to safeguard the life-supporting capacity of water, soil and ecosystems. Additional Part 2 matters of particular importance and relevance to the appeal require Environment Southland to:

- (a) recognise and provide for:
 - (i) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga (section 6(e)).

- (b) have particular regard to:
 - (i) kaitiakitanga (section 7(a));
 - (ii) intrinsic value of ecosystems (section 7(d)); and
 - (iii) maintenance and enhancement of the quality of the environment (section 7(f)); and

- (c) take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) (Section 8).

19. The concepts of ki uta ki tai, Te Mana o te Wai and mahinga kai expressed in the evidence of Mr Skerrett, Ms Cain and Dr Kitson are all recognition of and ways of providing for section 6(e) and section 7(a). I consider Mr Skerrett's evidence also highlights the principles of active protection and rangatiratanga anticipated by section 8. Furthermore, I consider the request of Ngā Rūnanga to at least maintain the quality of the environment is an expression of sections 7(d) and 7(f). I would further suggest that the need for an approach that addresses ki uta ki tai also provides for sections 7(d) and (f). These further align with the purpose of the RMA in section 5.

National Policy Statement for Freshwater Management 2014 (NPSFW)

20. The pSWLP must give effect to the NPSFW. I draw specific reference here to:

- (a) Te Mana o te Wai (Objective AA1 and Policy AA1)
- (b) Integrated management (Objective C1 and Policies C1 and C2); and
- (c) Tāngata whenua roles and interests (Objective D1 and Policy D1).

21. I consider that these provisions are centrally important in relation to the concerns expressed in the appeal.
22. The inclusion of Te Mana o te Wai in the NPSFW reflects the Treaty Principles (section 8 of the RMA) and provides for the relationship of tangata whenua with fresh water (section 6(e) of the RMA). It is specifically incorporated into the NPSFW through Section AA, where it provides a korowai (cloak) for the other objectives and policies that follow. The concept is further strengthened through the National Values and Uses for Fresh Water in Appendix 1.
23. Te Mana o Te Wai needs to be considered and recognised in the management of fresh water. This is something Environment Southland has already commenced by incorporating the concept into the pSWLP. How this occurred is discussed in Ms Cain’s evidence [paragraphs 84 - 92] where the concept of Te Mana o te Wai in the NPSFW resonated with Papatipu Rūnanga and, as a result, they actively sought to include in the SWLP. The resulting outcome aligning with the more directive approach to Te Mana o Te Wai introduced in 2017 in section AA of the NPSFW.
24. Objective C1 and Policy C1 require the improvement of integrated management of fresh water and the use of land in catchments. To give effect to this the pSWLP must recognise ki uta ki tai and the interactions between land, water and associated ecosystems. Mr Skerrett and Ms Cain describe the attributes of ki uta ki tai in their evidence as being “a *culturally based natural resource framework and literally means from the mountains to the sea; not in a literal or hydrological sense but a holistic one*”² and “*similar to the RMA term ‘integrated management’ and reflects the mātauranga that all environmental elements are connected and must be managed as such*”³.
25. Policy D1 requires the reflection of tangata whenua values and interests in decision-making. Mr Skerrett and Ms Cain highlight the nature of these values

² Mr Skerretts evidence, paragraph 86.

³ Ms Cains evidence, paragraph 41.

and interests. I will discuss the extent to which these values and interests are being reflected in my evidence on specific Ngā Rūnanga appeal points.

26. I also consider the Water Quality Objectives A1 – A4 and Policies A1, A3 and A4 to be of particular relevance, and I discuss these in relation to specific matters within my evidence.
27. Importantly, I do not view the pSWLP as an “interim step” in terms of giving effect to higher order documents such as the NPSFW. Throughout the course of its development and both pre and post notification, it has been clear that the pSWLP is required to give effect to the NPSFW. While the FMU component might have been consciously deferred, this document is still required to show how it does and will give effect to the NPSFW. In my opinion, it is not satisfactory for the document to simply act as a placeholder until subsequent processes are commenced.

Other National Policy Statements and National Environmental Standards

28. My evidence also considers and discusses the National Policy Statement on Electricity Transmission 2008 and the National Policy Statement for Renewable Electricity Generation 2011. I have chosen to discuss the relevant sections of these as they relate to specific parts of my evidence rather than summarising them here.
29. I consider the New Zealand Coastal Policy Statement 2010 to be important in so far as there is a need to recognise the relationship between freshwater and the coastal environment and ki uta ki tai and the need in the NPSFW to consider the effects on estuaries. Mr Skerrett and Dr Kitson both discuss for example the migratory nature of taonga species like tuna and their dependence on a variety of water habitats during their lifecycles.

Southland Regional Policy Statement (SRPS)

30. The SRPS was made operative in 2017. **Appendix B** provides a list of the Objectives and Policies that I consider are of relevance to the pSWLP. I draw particular attention to the following takatā [tangata] whenua and water quality objectives of the SRPS - TW.1, TW.2, TW3, TW4, WQUL.1,WQUL.2, and WQUAL.3.

31. The Takatā Whenua objectives anticipate that provisions in regional plans will be established and maintained that safeguard identified environmental and cultural resources of tangata whenua from inappropriate use or development [Method TW.1]
32. I discuss the water quality objectives, to the extent that they are relevant, in my evidence.

Iwi Management Plans

33. Section 66(2)(A)(a) of the RMA requires that a council must take into account any relevant planning document recognised by an iwi authority when preparing a plan or plan change. Iwi Management Plans within the Ngāi Tahu rohe express Ngāi Tahu values, knowledge and perspectives on natural resource and environmental management issues, objectives, policies and outcomes. These are intended to achieve more meaningful rangatiratanga and kaitiakitanga in natural resource management⁴.
34. For Southland there are two iwi management plans that must be taken into account: the Te Rūnanga o Ngāi Tahu Freshwater Policy 1992 (**Appendix D**) and Te Tangi a Tauira (Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan) 2008 (excerpts are included in **Appendix A**).

Te Rūnanga o Ngāi Tahu Freshwater Policy

35. The Te Rūnanga o Ngāi Tahu Freshwater Policy complements and must be read alongside existing iwi management plans for Ngāi Tahu.
36. The Te Rūnanga o Ngāi Tahu Freshwater Policy sets out the environmental outcomes sought by Ngāi Tahu, namely that:
- (a) water is central to all Māori life. It is a taonga left by ancestors to provide and sustain life. It is for the present generation as tangata tiaki,

⁴ *Te Rūnanga o Ngāi Tahu Freshwater Policy* Section 1.2.

- to ensure that the taonga is available for future generations in as good as, if not better quality;⁵
- (b) water plays a unique role in the traditional economy and culture of Kāi. Without water no living thing, plant, fish or animal can survive;⁶
 - (c) water is taonga. Water has an inherent value that should be recognised in the event of potentially competing uses;⁷
 - (d) water is a holistic resource. The complexity and interdependency of different parts of the hydrological system should be considered when developing policy and managing the water resource.⁸

Te Tangi a Tauria the Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008

37. The kaupapa of *Te Tangi a Tauria the Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 (Te Tangi)* is ki uta ki tai. The kaupapa reflects the knowledge that resources are connected from mountains to the sea and must be managed as such.⁹
38. Te Tangi is “*written as a statement that consolidates Ngāi Tahu ki Murihiku values, knowledge and perspectives on natural resource and environmental management issues*”.¹⁰ The relevant policies from Te Tangi are contained in **Appendix 1** to this evidence.
39. Mr Skerrett discusses in his evidence¹¹ the development of Te Tangi and how it relates to The Charter of Understanding between the councils of Southland its Ngāi Tahu ki Murihiku. Ms Cain¹² describes how the four aspirations of Ngāi Tahu for fresh water to Environment Southland staff in 2014 was used to demonstrate that Ngāi Tahu aspirations for freshwater derived from Te Tangi and the Ngāi Tahu Freshwater Policy have been consistent for decades and form the basis of all discussions between Ngāi Tahu, the Crown and Environment

⁵ Policy, page 6 in the Introduction section in Part One.

⁶ Policy, Part 3 entitled "Kaupapa" on page 9.

⁷ Ibid.

⁸ Ibid.

⁹ Wahi tuatahi – He Kupu Whakataki, Section 1.2 pg 24.

¹⁰ Ibid, Section 1.4 pg 28.

¹¹ Mr Skerrett's evidence, paragraph 31.

¹² Ms Cain's evidence, paragraph 28.

Southland. Ms Cain's evidence further describes that these aspirations were woven through the pSWLP as it was drafted.¹³

Conclusion on the Statutory Framework

40. The statutory framework strongly directs the Council to recognise and provide for the relationship of Ngāi Tahu with the soil and water of Southland, including:
- (a) ensuring fresh water bodies support their customary uses and cultural values, including the gathering of mahinga kai;
 - (b) safe-guarding the life-supporting capacity of soil and water;
 - (c) ensuring Ngāi Tahu is able to exercise kaitiakitanga;
 - (d) recognising Te Mana o te Wai; and
 - (e) recognising ki uta ki tai.

MEASURING WATER QUALITY FROM 2010

41. Central to the Ngā Rūnanga appeal is that it seeks water quality is maintained from 2010 to avoid further degradation of water quality. The 2010 date to maintain water quality is used by Ngā Rūnanga as this was when the Regional Water Plan became operative¹⁴. The existing operative Regional Water Plan was the starting point for the development of the pSWLP.
42. Mr Skerrett discusses in his evidence that Nga Rūnanga were given the expectation by Environment Southland that there would be a 10% improvement in water quality over the life of the Regional Water Plan. This he states was a reduction on an original 20% improvement proposed by the Council, despite the Council acknowledging that water quality had deteriorated¹⁵.
43. The Regional Water Plan's environmental results anticipated that by 2020 (the life of the Plan):
- (a) there would be reduction of water quality in the Southland region beyond the zone of reasonable mixing for discharges;

¹³ *Ibid.*

¹⁴ It also replaced the Southland Regional Effluent Land Application Plan 30 May 1998 and the Transitional Regional Plan 1991.

¹⁵ Mr Skerrett's evidence, paragraphs 102 – 103.

- (b) water quality would be maintained in Natural State Waters;
- (c) the water quality of surface water bodies would be maintained and enhanced so that it would be suitable for bathing in popular bathing sites, trout and native fish, stock drinking water and Ngāi Tahu cultural values, including mahinga kai;
- (d) an improvement in the water quality would be achieved in hill, lowland and spring-fed surface water bodies over 10 years from the date this Plan became operative (January 2010). In particular, a minimum 10% reduction in levels of microbiological contaminants, nitrate and phosphorus and a minimum 10% improvement in water clarity;
- (e) discharges to water bodies would not result in levels of toxic substances that harm humans, domestic animals including stock or aquatic life;
- (f) wherever practicable, and where effects are less adverse, discharges would be to land rather than to water;
- (g) the significant adverse effects of discharging during low flows would be avoided;
- (h) the number of surface water bodies with riparian vegetation that assists in maintaining and enhancing water quality, bank and channel stability would be significantly increased;
- (i) stormwater discharges would meet water quality standards and current ANZECC sediment guidelines by 2010;
- (j) fresh water quality would not have an adverse effect on coastal water quality; and
- (k) the establishment of new dairy farms would be undertaken in accordance with good management practices and does not result in water quality decline in the region.

44. Dr Kitson's evidence leaves little doubt that the quality of water in Southland, and the environment more generally, has degraded in the last ten years and that the goals of the Regional Water Plan 2010 were not realised. Her evidence describes how Te Mana o te Wai has been impacted:

- (a) Te Hauora o te Wai (the health of the waterbody) has been impacted in the following ways:
 - (i) there are exceedances in ecosystem health guidelines in rivers across all FMUs;

- (ii) lowland lakes in the Matakura catchment are below the bottom line for ecosystem health;
 - (iii) recent drainage activity presents continued risks to wetlands where fewer than 90% of this waterbody type still remain; and
 - (iv) the receiving environments of New River and Jacobs River estuaries are in poor health with gross areas of eutrophication and Toetoes (Fortrose) is heading on a similar path.
- (b) Te Hauora o te Taiao (the health of the environment):
- (i) nearly one quarter of the sites fail the Regional Water Plan standards, and nearly one third of the sites have deteriorating Micro-invertebrate trends; and
 - (ii) with the exception of Waiau FMU there are sites where there would be impacts on up to 20% of aquatic species from nitrate toxicity.
- (c) Te Hauora o te Tangata (the health of the people):
- (i) 64% of state of environment sites would be considered unsafe for swimming. The two freshwater Mātaitai are nearly 5 and 10 times over the swimming threshold; and
 - (ii) all the Statutorily Recognised Rivers and Waituna Lagoon have experienced Cyanobacteria (toxic algae) blooms.

45. These factors are highly material in my view, if the state of the environment when the pSWLP was notified is taken as a starting point and a “given”. The “starting point” is understandably a cause of great concern to Ngā Rūnanga, as the clear and directive wording in the notified pSWLP regarding management of water quality has been substantially weakened in the decisions version and the manner in which the water quality objectives of the NPSFW are proposed to be given effect to is unclear. This means that there is both a lack of clarity and direction for the forthcoming process of setting objectives for FMUs, and an absence of suitable controls or direction to guide consenting processes in the meantime.

46. In my opinion, accepting the status quo at notification as a “given” increases the difficulty of reversing the trend to achieve improvements and so creates significant risks of further degradation of water quality in Southland. This results

in the continuing imposition of costs in terms of cultural, recreational, and social values to the apparent benefit of economic interests and the farming sector. I do not consider this imbalance to reflect the RMA's sustainable management purpose, nor will it enable the achievement of the NPSFW water quality directives.

- 47.** I consider that establishing a date to maintain water from is anticipated also by Objective A1 and A2 of the NPSFW which require the safeguarding of life-supporting capacity and the overall water quality. NPSFW Objective A1 reinforces components of the purpose of the RMA while recognising the seriousness of degrading water quality in New Zealand¹⁶. Objective A2 requires maintenance and improvement of the overall quality of water and specifically, improvement of water quality where this has been degraded to the point that freshwater objectives are not met (i.e. they are over-allocated). Although freshwater objectives for Southland FMUs are yet to be developed, it is important that the SWLP sets a framework that will not inhibit the setting of freshwater objectives that are consistent with the Objective A1, or the achievement of these objectives once they are set.
- 48.** The need for interim steps to address adverse water quality trends is further encouraged by Policy A4 of the NPSFW, which requires Councils to have regard to water quality until such time as a plan change is in place to give effect to Policy A1 and A2.
- 49.** In terms of the SRPS, I consider that the continued decline in water quality does not meet:
- (a) mauri and wairua are sustain or improved where degraded, and mahinga kai and customary resources are healthy, abundant and accessible to tangata whenua; (Objective TW.3)
 - (b) objectives WQUAL.1, WQUAL.2 and WQUAL.2 which seek to halt the decline and improve water quality having particular regard to nitrogen, phosphorous sediment and microbiological contaminants; and
 - (c) the need for coastal ecosystems to be maintained or enhanced (Objective COAST.3).

¹⁶ Harrison Grierson, April 2011, *Ministry for the Environment, Freshwater Management National Policy Statement, Section 32 Evaluation*; Wellington p 51 – 53.

50. Ideally, such objectives should also be sufficiently clear and directive about necessary outcomes such that they can provide strong guidance for resource consent decision-making in the meantime and for the FMU process into the future. As I discuss below, it is my opinion that the decisions version of the pSWLP does not contain such objectives.
51. As I have previously mentioned, in Southland this is a matter of concern given that it appears that almost none of the outcomes set out in the current regime (the Regional Water Plan 2010) have been achieved. This suggests to me that, as a bare minimum, bold and decisive provisions in the SWLP to halt and/or reverse the decline in water quality (and hence give effect to the NPSFW) are required. While I accept that it is not certain that the notified version of the pSWLP would have achieved this, it is far less certain that the decisions version will. Moreover, the decisions version does not provide confidence that the FMU process will succeed in doing so.

SPECIFIC PROVISIONS

Objective 2 – Primary production

52. Ngā Rūnanga seeks the removal of the specific reference to “primary production” as it has been applied in Objective 2 which reads [emphasis added]:

*Water and land is recognised as an enabler of **primary production** and the economic, social and cultural wellbeing of the region.*

53. The appeal asserts that the specific enablement of primary production is not consistent with the NPSFW and nor does not appropriately recognise Te Mana o te Wai (which is a matter of national significance underpinning the NPSFW).
54. It is my opinion that specific mention of primary production is unnecessary and inappropriate. The express recognition of primary production being enabled (to the exclusion of other activities) is inappropriate because the activities associated with and benefits of primary production are already captured by reference to economic, social and cultural wellbeing.
55. Te Mana o te Wai puts the needs of the waterbody first. The NPSFW states that Te Mana o te Wai acknowledges and protects the mauri of the water. It requires that in using water you must also provide for Te Hauora o te Taiao (the health of

the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people). The evidence Ms Cain¹⁷ explains this in the context of Murihiku as a korowai or overarching principle for managing freshwater. Ms Cain further considers it makes the mana of water, its health and status the paramount priority. It is seen to give reverence to water, rather than regarding it solely as a commodity.¹⁸

56. I agree with Mr McCallum-Clark [paragraph 40] that land and water are important as an enabler of primary production. Equally they are important as an enabler of a range of other activities. I agree with Mr McCallum-Clark that Objective A4 and Policy A7 of the NPSFW requires that the Council must consider when giving effect to this national policy statement, how to enable communities to provide for their economic well-being, including productive economic opportunities, while managing within limits.
57. However, I consider that, as drafted, Objective 2 creates a preference for one type of use of land and water use over the other values and uses of land and water including those that rely upon Te Hauora o te Taiao (the health of the environment) like mahinga kai. This could this have the unintended consequence of providing for growth in primary production and an increase in adverse environmental effects.
58. I also consider the SRPS does not provide a preferential treatment to farming. Policy WQUAL.7 requires that social, economic and cultural benefits from the use, development or protection of water resources. This same statement is provided with regard to water quantity (Policy WQUAN.7). A similar statement is made with regard to rural land and soils (Policy RURAL.1).
59. If the Court is minded to accept that a reference to primary production can appropriately remain within the Objective in order to record its significance to the Southland Region I would recommend the following amendment:

Water and land is recognised as an enabler of the economic, social and cultural wellbeing of the region including primary production.

¹⁷ Ms Cain's evidence, paragraph 85.

¹⁸ *Ibid.*

60. I maintain my view however that deletion of the reference to primary production would be more appropriate than its inclusion.

Objective 8

61. Ngā Rūnanga appealed the decision to include the use of the term “overall” in Objective 8 of the pSWLP. The decision’s version of Objective 8 reads as follows [emphasis added]:

*There is no reduction in the **overall** quality of freshwater, and water in estuaries and coastal lagoons, by:*

- (a) maintaining the quality of water in waterbodies, estuaries and coastal lagoons, where the water quality is not degraded; and*
- (b) improving the quality of water in waterbodies, estuaries and coastal lagoons, that have been degraded by human activities.*

62. Ngā Rūnanga opposes the introduction of the word overall into Objective 8 because it provides no certainty that the pSWLP will maintain or improve water quality. The addition of “overall” removes the certainty that the intent of the proposed plan is that the quality of all freshwater and water in estuaries and coastal lagoons in Southland is to be maintained or improved.
63. In the context of Objective 8 I consider that adding the word overall¹⁹ suggests that there will be trade-offs or a balancing of water quality meaning that part of a catchment or waterbody can remain degraded or become further degraded if other parts stay the same or improve. For example, higher nutrient discharges within the lower reaches of a river system might be allowed while the upper parts of the system are maintained in a higher quality state.
64. The evidence of Dr Kitson suggests that there are widespread issues with declining water quality across the region and considerable level of variability of water quality within catchments and rivers. This decline and variability in water quality could become embedded or accepted in the SWLP if “overall” is retained. Dr Kitson²⁰ also discusses how the health of a river can be affected by the deterioration at one point of its length i.e. what happens at one point can affect all parts of the catchment, and further, all parts of the surrounding environment.

¹⁹ Overall is defined in the Oxford English Dictionary as meaning taken as a whole or in all.

²⁰ Dr Kitson’s evidence, paragraph 44.

65. Mr Skerrett's evidence discusses how the environment must sustain you wherever you travel.²¹ An "overall" approach would mean, as Mr Skerrett discusses, that although cultural conditions sufficient to sustain a particular cultural use may exist elsewhere in the catchment, relocation would serve to dislocate and deprive the user of their cultural context. An "overall" approach would not appropriately recognise and provide for the matters in RMA section 6(e). For that reason I consider it is appropriate that the clarity of the objective not be weakened by the addition of "overall".
66. Allowing degradation would also be inconsistent with the following Objectives of the SRPS, which the SWLP must give effect to under section 67(3) of the RMA: WQUAL.1 – Water quality goals, WQUAL.2 – Lowland water bodies and WQUAL.3 – Water in natural state.
67. These three Objectives do not refer to overall water quality. They read as the water quality in "all" waterbodies is maintained or improved in accordance with the NPSFW. This assumption of maintenance of all waterbodies is also provided for in the Regional Water Plan 2010 which seeks to at least maintain [Objectives 1 -3] and within the hill, lowland (hard bed), lowland (soft bed) and spring fed a 10% minimum improvement within the lifetime of the Plan [Objective 4].
68. I do not consider the inclusion of "overall" in Objective 8 makes it consistent with the NPSFW or adds value by way of clarity to the objective. When the pSWLP was notified, the NPSFW 2014 required that overall quality of freshwater within a region be maintained. However, in the 2017 review of the NPSFW, it was found that it was unclear how regional councils and communities can establish whether a freshwater objective is sufficient to maintain overall water quality in terms of Objective A2 at the regional level.²² It was considered the level of uncertainty created a risk of inconsistent approaches, and increased the chances of debate and litigation.²³ It was determined that, in conjunction with an additional policy CA2 specifying minimum requirements for freshwater objectives, Objective A2 should be amended to apply to an FMU, rather than a region.²⁴

²¹ Mr Skerrett's evidence, paragraph 77.

²² MfE 2017; *Proposed amendments to the National Policy Statement for Freshwater Management, Section 32 evaluation*. Wellington: Ministry for the Environment p 12.

²³ *Ibid.*

²⁴ *Ibid.*

69. I consider that “overall”, as used in Objective 8 of the pSWLP, would result in the same level of uncertainty that was found to have occurred in the previous version of the NPSFW. As currently worded, Objective 8 does not provide guidance as to whether overall water quality is within an FMU, a particular waterbody or part of a waterbody, or across the Region. When combined with the weakening of other key objectives and policies in the pSWLP, the decisions version does not better give effect to the NPSFW or SRPS than the notified version, and provides little in the way of guidance or direction about the subsequent FMU process and its outcomes. I also do not consider this to be an effective way to provide interim guidance for the purposes of Policy A4 of the NPSFW until the FMUs are set. The wording creates uncertainty and makes it open to interpretation from a consenting perspective.
70. I agree with Mr McCallum-Clark [at paragraph 54] that there may be specific circumstances where a decision may lead to some level of decline in water quality. This is anticipated and provided for by the NPSFW when it uses the term overall in Objective A2. However, I also agree with Mr McCallum-Clark²⁵ that a regional council can be more stringent than the NPSFW. Environment Southland has consistently, through the development of its SRPS and the Regional Water Plan 2010, provided clear direction through objectives and policies that provided for at least maintaining water quality. I cannot accept that, given on-going degradation of water quality in the region, removing or weakening this clarity through the pSWLP better gives effect to the NPSFW.
71. I therefore maintain my opinion that the inclusion of the word “overall” is not the most appropriate way for Objective 8 to give effect to higher order directions and documents.

Objectives 9 and 9A

Historic heritage

72. The appeal of Ngā Rūnanga notes that historic heritage is a broad term. Archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act 2014 (**HNZPTA**). Aside from the HNZPTA requirements relating to

²⁵ Evidence in Chief, Matthew McCallum-Clark at paragraph 53.

modification of archaeological sites, statutory protection of historic heritage relies on provisions in RMA documents. Although the effects of many land use activities can be managed in district plans, historic heritage including wāhi tapu, wāhi tupuna and sites of significance can also be affected by activities that are controlled in regional plans. For example works in the bed of a river may affect a wāhi tapu site or the discharge of effluent onto an area of urupā or area where kōiwi are thought to be would be regarded as culturally offensive.

- 73.** The evidence of Ms Cain [Paragraphs 52 - 57] discusses how the Ngāi Tahu population in Murihiku was sparse and settlements and mahinga kai could be hundreds of kilometres apart with inland routes from the coast to mountains tending to follow land and features and use the waterways. Nohoanga were generally located around a lake or a river. Her evidence suggests therefore that historic heritage associated with Ngāi Tahu settlement and activity in Southland may be plentiful, over wide areas and providing minimal visible evidence of human occupation or the site(s) location. She notes that there are unrecorded archaeolgocial sites and wāhi tapu in Southland.
- 74.** While it is accepted that it is not possible for there to be explicit rules in a regional plan which protect historic heritage, this does not mean that heritage should not be a relevant consideration for the regional council when considering consent applications which might impact on historic heritage sites and resources. There is no direction in the pSWLP to consider effects of activities on historic heritage within a consents process despite there being potential adverse effects from discharges into water or onto land, water take and use, and the use of beds of rivers and lakes on heritage sites.
- 75.** Regional councils have jurisdiction under section 30(1) of the RMA to include objectives, policies and methods in relation to historic heritage. This could be included as part of integrated management (section 30(1)(a)) and also the requirement to include objectives and policies regarding historic heritage in relation to the effects of the use, development, or protection of land which is of regional significance (section 30(1)(b)) or to address the effects from activities under the jurisdiction of the Council on wāhi tapu and wāhi taonga. Or it could as Mr McCallum-Clark describes be captured in 30(1)(c) as something the Council may consider in a resource consent that is not directly related to its functions [paragraph 87]. Given the breadth of s30(1) of the RMA historic I agree

with Mr McCallum-Clark that historic heritage there could be included in Objective 9.

76. I consider that the inclusion of historic heritage would also make it consistent with the SRPS. The SRPS requires that wāhi tapu, wāhi taonga and sites of significance to tangata whenua are appropriately managed and protected [Objective TW.4] and furthermore historic heritage is protected from inappropriate use and development (Objective HH.1). I note that the SRPS also requires that Southland's historic heritage resources are to be managed in a regionally consistent, collaborative and integrated manner (Policy HH.5). The recognition of historic heritage in the SWLP would provide for this more consistent, collaborative and integrated approach.

Splitting Objective 9 and 9A into two

77. In relation to the separation of Objective 9 and 9A into two objectives, I agree with Mr McCallum-Clark [at paragraph 95] that it is appropriate for it to be recombined into a single objective. This is consistent with the appeal by Ngā Rūnanga.

78. As notified, Objective 9 read as follows:

- (a) *The quantity of water in surface waterbodies is managed so that aquatic ecosystem health, life-supporting capacity, outstanding natural features, recreational values, natural character, and historic heritage values of surface waterbodies and their margins are safeguarded; and*
- (b) *Provided (a) is met, water is available both in stream and out-of-stream to support the reasonable needs of people and communities to provide for their social, economic and cultural wellbeing.*

79. The decision amended the Objective to read:

Objective 9

The quantity of water in surface waterbodies is managed so that aquatic ecosystem health, life-supporting capacity, outstanding natural features and landscapes, recreational values and natural character are safeguarded.

Objective 9A

Surface water is sustainably managed to support the reasonable needs of people and communities to provide for their social, economic and cultural wellbeing.

- 80.** The Ngā Rūnanga appeal sought the reinstatement of reference to managing the needs of the surface waterbody for aquatic ecosystem health, life supporting capacity, outstanding natural features and landscapes and natural character as a priority, with water being available for in-stream and out-of-stream use provided that priority was met.
- 81.** I agree with the Ngā Runanga appeal that splitting the Objective into two diminishes Te Mana o te Wai, and suggests that the needs of the waterbodies can be balanced against the needs of people and communities for reasonable use. It is my opinion that putting the needs of the water first is required by Section AA of the NPSFW. The assurance that the needs of the water come first was appropriately provided for in the notified version of the Objective by the wording “provided that (a) is met”. I do not consider that applying the term “sustainably managed” or “supports the reasonable needs of people and communities” achieves the same outcome or the correct priority set by the NPSFW with respect to Te Mana o te Wai. As noted above, these words imply a balance between the needs to the waterbody and the needs for its use. The separation into two objectives creates unnecessary doubt as to the relative weighting that should be applied to the two objectives. In my opinion, retention of Objective 9 as notified is more appropriate at giving effect to higher order directions and documents than the decisions version.

Objectives 9B, 10 and 11 – Infrastructure

Objective 9B

- 82.** The pSWLP decision added new Objective 9B:

The effective development, operation, maintenance and upgrading of Southland’s regionally significant, nationally significant and critical infrastructure is enabled.

- 83.** Ngā Rūnanga seeks Objective 9B is deleted in its entirety on the grounds that the objective and related definitions provide insufficient clarity as to what constitutes effective development, operation, maintenance and upgrading of 'regionally significant infrastructure'.
- 84.** The definition of infrastructure in the RMA covers:
- (a) pipelines that distribute or transmit natural or manufactured gas, petroleum, biofuel or geothermal energy;
 - (b) telecommunications and radio communications networks;
 - (c) the electrical network;
 - (d) water supply network, including for irrigation;
 - (e) drainage and sewerage systems;
 - (f) transport networks on land;
 - (g) ports; and
 - (h) airports.
- 85.** The definitions in the SRPS and the pSWLP for critical infrastructure, national infrastructure and regional infrastructure are overlapping subsets of infrastructure as defined in the RMA. I note that the definition of Critical Infrastructure in the SRPS, as well as referring to infrastructure, also includes all strategic facilities. The SRPS does not define strategic facilities but I understand this could include hospitals, schools, emergency operations centres and food distribution centres used during an emergency declared under the Civil Defence Emergency Management Act 2002.
- 86.** Looking at how infrastructure is addressed in the pSWLP, the activities that are defined as infrastructure are captured in provisions²⁶ relating to:
- (a) discharges from sewerage schemes;
 - (b) fresh water takes for community water schemes;
 - (c) structures in, on, under or over the beds of rivers and lakes;
 - (d) disturbance of the beds of rivers and lakes; and
 - (e) the taking, damming, use and diversion of water.

²⁶ The location of new Policy 26A infrastructure appears misplaced being within the section of the Plan "Activities that affect water quality" rather than the "Region Wide Policies" section which gives by placement suggests a narrower focus.

- 87.** I consider these provisions are consistent with need to provide for the development, maintenance, upgrade and on-going operation of regionally significant, nationally significant and critical infrastructure and associated activities in Policy INF.1 of the SRPS and also meeting the needs of the NPSREG or the NPS for Electricity Transmission (**NPSET**). I therefore do not agree with Mr McCallum-Clark²⁷ that removing Objective 9B would mean the pSWLP fails to appropriately give effect to Policy INF.1 of the SRPS, NPSREG or NPSET. However, on consideration of objectives relating to infrastructure I consider that, with amendment, Objective 9B could be appropriately retained.
- 88.** If the objective is retained, I agree with the Ngā Rūnanga appeal that there needs to be some clarity as what constitutes enabling effective development, operation, maintenance and upgrading of infrastructure.
- 89.** Enable means “make possible for”²⁸. It suggests an activity status akin to permitted and controlled status. As indicated earlier, infrastructure covers a considerable number of activities and their effects. The objective could enable a range of adverse effects, including the establishment of dams and weirs on rivers that restrict fish passage as discussed in Dr Kitson’s evidence²⁹.
- 90.** Given the broad scope of activities that “infrastructure” covers and the environmental effects that maintenance, use, development may have, I consider a more appropriate balance in the objective would be achieved by referring to the need to enable infrastructure while providing direction on how effects will be managed. This would provide for the NPSREG or NPSET but also account for Policies A7 and B8 of the NPSFW which recognise communities should be enabled to provide for economic wellbeing (including through the benefits provided by infrastructure) but that this must managed within limits.
- 91.** I consider amending the objective to address adverse effects on the environment would address the concerns of Ngā Rūnanga, as it provides clear direction that enabling infrastructure must be undertaken with consideration of the negative impacts this may have on the environment.

²⁷ At paragraph 112 of his EiC

²⁸ As defined in the Oxford English Dictionary.

²⁹ Dr Kitson’s evidence, paragraphs 141 – 144.

92. I therefore consider that Objective 9B could be amended to read:

The effective development, operation, maintenance and upgrading of Southland's regionally significant, nationally significant and critical infrastructure is enabled while managing adverse effects on the environment.

Objective 10

93. Objective 10 reads as follows:

The national importance of existing hydro-electric generation schemes, including the Manapōuri hydro-electric generation scheme in the Waiau catchment, is provided for, recognised in any resulting flow and level regime, and their structures are considered as part of the existing environment.

94. Ngā Rūnanga seeks to delete the text “hydro-electric schemes, including the” and “and their structures are considered a part of the existing environment” from Objective 10.

95. The reason given for this in the appeal is that not all hydro-schemes within Southland are nationally important, nor should existing structures be considered a part of the existing environment, particularly where these structures are operating below what would be considered current best management practice. The changes sought by Ngā Rūnanga effectively return Objective 10 to how it was worded when notified. Ngā Rūnanga supported the notified version of the Objective which was:

The national importance of the existing Manapōuri hydro-electric generation scheme in the Waiau catchment is provided for and recognised in any resulting flow and level regime.

96. Addressing national importance first, I agree with the Ngā Rūnanga appeal that not all hydro-schemes are nationally important.

97. The NPSREG recognises as a matter of national significance:

- (a) the need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand; and

(b) the benefits of renewable electricity generation.

98. The Objective of the NPSREG is:

To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.

99. The NPSREG provides for small and community scale electricity generation, for example those operated by Alliance Group Limited and Maitava Industrial Estates at Maitava on the Maitava River as well as for larger schemes like Manapouri. It does not say however that all are nationally important. Instead it directs New Zealand towards meeting or exceeding Government's target for renewable electricity generation – in which hydro schemes play a part along with other renewable electricity generation like solar, wind and wave energy.

100. Policy E2 and F of the NPSREG require Environment Southland within its Plans to include provisions to provide for the development, operation, maintenance and upgrading of new and existing-hydro-electricity generation activities to the extent applicable to the region. The wording "to the extent applicable to the region" gives Environment Southland discretion as to what is appropriate for the region. There is no requirement to give all hydro-schemes in Southland the same status, when the reality is that most hydro schemes would not be nationally important on an individual basis. I note that SRPS Objective ENG.4 is that the generation and use of renewable energy resources is increased. However, as with the NPSREG this is for all renewable energy schemes not just hydro-electrical generation. Furthermore, not all hydroschemes provide sufficient benefits to balance these against the adverse effects discussed by Mr Skerrett with regard to damming water³⁰ and Dr Kitson in her evidence [paragraphs 141-144]

101. I consider that Objective 9B provides adequately for recognition of the smaller hydro-electric schemes within Southland.

³⁰ Mr Skerrett's evidence, paragraph 80.

- 102.** If the Objective is amended to be specific to the Manapouri Hydroscheme, then I think it would be appropriate to retain the words “*and their structures are considered as part of the existing environment*” amending the word “their” to “its”. This recognises the national significance of the structure.
- 103.** A further reservation that I have about the wording of the Objective is that it has the potential to minimise or diminish unacceptable adverse effects of existing structures for consent renewal purposes. The RMA already deals with some of these issues in section 124 – 124C, and it is my opinion that the Objective as worded may impact on those statutory provisions and change their effect.
- 104.** In my opinion Objective 10 could read as follows:

The national importance of the Manapōuri hydro-electric generation scheme in the Waiau catchment, is provided for, recognised in any resulting flow and level regime, and its structures are considered as part of the existing environment.

New Objective Renewable Energy

- 105.** Ngā Rūnanga is a 274 party to the appeal of Meridian Energy and opposes the inclusion of a new Objective to read:

Recognise and make provision for the national significance of renewable electricity generation activities.

- 106.** As drafted, I consider the requested objective provides little more guidance than the NPSREG does. I consider it is not helpful to include objectives that simply repeat sections or clauses of the RMA or any national instruments. If Objective 9B [as discussed in paragraphs 82 - 92] and Objective 10 [as discussed in paragraphs 93 - 104] provide for renewable energy generation, I suggest the requested new Objective would be unnecessary duplication.
- 107.** I agree with Mr McCallum-Clark [at paragraph 138] that Objective 9B and related policies adequately address the matter referred to in the requested new objective. I therefore consider that the inclusion of this new Objective is unnecessary.

Objective 13, 13A and 13B

108. The Ngā Rūnanga appeal seeks that the provision be retained as notified. Objective 13 (as notified) read:

Enable the use and development of land and soils, provided:

- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities and discharges to land;*
- (b) the discharges of containments to land or water that have significant or cumulative effects on human health are avoided; and*
- (c) adverse effects on ecosystems (including diversity and integrity of habitats), amenity values, cultural values and historic heritage values are avoided, remedied or mitigated to ensure these values are maintained or enhanced.*

109. The decision on the pSWLP split the Objective into three separate Objectives which now read:

Objective 13

Enable the use and development of land and soils to support the economic, social, and cultural wellbeing of the region.

Objective 13A

The quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land.

Objective 13B

The discharges of contaminants to land or water that have significant or cumulative adverse effects on human health are avoided.

110. Nga Rūnanga opposed the creation of the three new objectives on the grounds that the restructured provisions do not give effect to ki uta ki tai.
111. The NPSFW defines ki uta ki tai as being from the mountains to the sea and being a part of integrated management. Mr Skerrett's evidence expands on this, explaining how it is advocated by Ngāi Tahu Whānui as being a key tool in assisting Ngāi Tahu achieve more meaningful rangatiratanga and kaitiakitanga in natural resource management. He describes how if the realms of Tāwhirimātea,

Tāne Mahuta, Papatūānuku and Tangaroa are sustained then the people will be sustained.³¹

- 112.** I consider that the Objectives as proposed provided for ki uta ki tai in that they recognised and provided for the management of soil which is a part of management of whole systems. Regional Councils are also required under Policy C1 of the NPSFW to recognise the interactions between land and water and associated ecosystems.
- 113.** I consider splitting the Objective into three removes the “provided that” which (particularly in relation to clause (b)) recognised the link between land and water, and therefore no longer recognises ki uta ki tai in the context of Policy C1 of the NPSFW.
- 114.** The new Objectives while still enabling the use and development of land and soils are now disjunctive. As such I suggest they could be traded off against each other. I consider this to be a serious weakening of the meaning and effect of Objective 13. Furthermore, as worded Objective 13 is very similar in intent to Objective 2 in that it is about recognising the inherent link of land and soils to the economic, social and cultural wellbeing of Southland.
- 115.** The decision on the pSWLP excluded 13(c). I agree with Mr McCallum-Clark [at paragraph 156] that there is merit in exploring the reinstatement of clause (c). I would further add that inclusion of 13(c) provides for Te Mana o te Whenua which, as discussed in the evidence of Ms Cain, is integral to ki uta ki tai as seen by Ngā Rūnanga.
- 116.** Taking all of these matters into account, it is my view that Objective 13 could read as follows:

Enable the use and development of land and soils, provided:

- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land;*
- (b) the discharges of containments to land or water that have significant or cumulative adverse effects on human health are avoided; and*

³¹ Mr Skerrett's evidence, paragraph 86.

- (c) *adverse effects on ecosystems (including diversity and integrity of habitats), amenity values, cultural values and historic heritage values are avoided, remedied or mitigated to ensure these values are maintained or enhanced.*

Objective 18

117. Ngā Rūnanga appealed Objective 18 seeking that the wording as notified be retained. Ngā Rūnanga consider the following Objective as worded in the decisions version provides little certainty as to what good management practice will achieve:

All activities operate in accordance with “good management practice” or better to optimise efficient resource use, safeguard the life supporting capacity of the region’s land, and soils, and maintain or improve the quality and quantity of the region’s water resources.

118. The wording of this Objective in the pSWLP as notified read:

All activities operate at “good (environmental) management practice” or better to optimise efficient resource use, and protect the region’s land, soils, and water from quality and quantity degradation.

119. I agree with Mr McCallum-Clark that the objective is intended to apply to all activities whether urban, rural or industrial [paragraph 195]. I further agree it is deliberately aimed at a high level and outlines an expectation of behaviour for all of those activities. It is not just farming practices where discharges should be managed to a minimum standard of behaviour.

120. However, the need to apply good management practice within the pSWLP is predominately focused on activities associated with farming:

- (a) Freshwater Management Unit Policies 4 – 12 require the implementation of good management practice to manage the effects of water from contaminant transport;
- (b) Rule 20(a)(5) requires, as a permitted activity, a written record of good management practices in the past 12 months to be provided by the landowner to Southland Regional Council on request;

- (c) In Rule 20(d), discretion is restricted to include whether to not the applicant has taken into account reasonable and appropriate good management practices to minimise losses of contaminants and that those that will be undertaken to minimise the discharge of nitrogen, phosphorous, sediment and microbiological contaminants to water; and
- (d) Appendix N requires the Farm Environment Plan show what good management practice has been undertaken since the pSWLP was notified and will be undertaken in the next 12 months.

- 121.** The application of good management practice to broader activities is only found in Policy 20 where, in determining the duration of a resource consent, consideration is to be given to the applicant's "adoption, particularly voluntarily, of good management practice".
- 122.** The Ngā Rūnanga appeal sought that Objective 18 should provide for the overall aim of requiring good management practice for all water and land users in the region, irrespective of the activity status under the pSWLP. I do not consider that reverting to Objective 18 as notified would necessarily provide this relief, but that it could be better achieved by amending the Objective in part and clarifying the definition of good management practice. I acknowledge that this amendment will have implications for the content of the rule when the Court comes to consider those later in the process.
- 123.** I consider greater clarity would be provided by removing reference to the word 'maintain' from Objective 18. In this instance I do not consider it is necessary to repeat the phrase 'maintain or improve' water quality as it is not reflective of what good management practice is intended to do. It is my experience and understanding that good management practice is not static but rather it is about continuous improvement based on changing knowledge, technology and innovation and it is not the bare minimum behaviour required. The use of the word "maintain" would not suggest this.
- 124.** Good management practice is currently defined in the pSWLP as including "*but not being limited to, the practices set out in the various good management practice factsheets available on the Southland Regional Council's webpage*". I do not consider the factsheets are or should be external technical matters which are usually too large or impractical to include in the Plan and therefore referenced in accordance with clause 30 of Schedule 1 of the RMA. I note that

throughout the pSWLP there are helpful advice notes as to what documents might be used to show compliance with a particular provision – I suggest the factsheets could be referred to also in the advice notes where appropriate.

- 125.** However, in my opinion omitting reference to the factsheets leaves the definition is less likely to provide the clarity that Ngā Rūnanga seek. I suggest that to provide the clarity sought by Ngā Rūnanga an amendment to the definition is then necessary. I consider that the following definition could be appropriate:

Good Management Practice - a suite of practices approved by the Chief Executive of Environment Southland which equate to a quality standard for a sector to manage adverse effects on soil and water.

- 126.** I have formulated this definition from considering the discussion documents prepared by the Land and Water Forum³² and reviewing use of the term by Environment Canterbury and Greater Wellington Regional Council. Like Environment Southland, these councils have developed policies and rules that rely on the incorporation of good management practice. I consider that reference to the documents being approved by the Chief Executive of Environment Southland provides clarity as to what good management practice for a particular sector is, that this is being applied fairly and equitably and that it can change and evolve but this is through a formal process. This formal process would ensure that Ngā Rūnanga and the community have clarity and certainty as to what is expected as good management practices.

- 127.** While I have used the term good management practice throughout my evidence, Mr McCallum-Clark recommends the term good management practice be replaced with good environmental practice. I agree this could assist in avoiding the possible perception that it only applies to agricultural activities. I note there is no nationally agreed definition of what good management practice is, nor any nationally recognised term, but that the term Good Management Practice is used specifically by Environment Canterbury to mean the practices described in the document entitled “Industry-agreed Good Management Practices relating to water quality” - dated 18 September 2015. This document refers specifically to agricultural Good Management Practice and the documents and its practices are

³² Land and Water Forum; May 2018; Advice on improving water quality: preventing degradation and addressing sediment and nitrogen p 13 – 17.

starting to be used elsewhere in the country. I agree that a change of term to good environmental practice may assist in avoiding confusion. I would however note that that Policy 17 (2) refers to “best practice” and “best practice guidelines”, Rule 36 (a)(i) to “Good Practices” and Appendix O to “best practice options”. The SRPS refers to the development of “good practice guidelines” (Method RURAL.8) and “guidance on good practice land management methods” (Method RURAL.13).

THE EFFECTS OF REMOVING PHYSIOGRAPHIC ZONES FROM THE PLAN RULES AND HOW THE PLAN MANAGES WATER

- 128.** The appeal by Ngā Rūnanga seeks that physiographics be re-instated in the pSWLP as it was notified. The reason for this is that the concept of physiographics reflects well the concept of ki uta ki tai by providing for te mana o te whenua, as discussed in Ms Cain’s evidence³³. She also considers it “put a spotlight for land in the pSWLP. Mr Skerrett discusses how it resembled the land management approach in Te Tangi³⁴. Also, as Mr Skerrett discusses, Ngā Rūnanga supported the use of physiographics because it underpinned an array of management approaches in the pSWLP.³⁵
- 129.** I note the Ngā Rūnanga submission broadly supported the policies and rules for physiographics in the notified pSWLP, although it did seek that that Oxidizing, Riverine and Old Maitara zones be afforded more protection than drafted.
- 130.** I note that the section 32 report made available at notification does not refer to the risks in the approach that were later identified and that resulted in the amendments to the decisions version of the pSWLP. Given this, it is not surprising that Ngā Rūnanga are disappointed with the change in approach as it was not until the section 42A report prepared for the hearing that they became aware of the full nature of concerns Environment Southland had with the application of physiographics at a farm scale. At this point they became aware that there may be some need to refine the approach at a property level. Evidence for Ngā Rūnanga given at the hearings suggested an approach that would provide for site-specific information in consent applications where the key

³³ Ms Cain’s evidence, paragraph 19

³⁴ Mr Skerretts evidence, paragraph 75

³⁵ Environment Southland; 19 October 2018; *Updated Evaluation Report: Proposed Southland Water and Land Plan; Prepared for the Environment Court*, p 29

contaminant pathway is shown not to reflect the physiographic zone applied to the property.

- 131.** I consider, as a planning tool, an approach which links what happens on land to the effects on waterbodies has considerable merit. The physiographics approach recognised different ways that water moves through the land and therefore the variability to risk from nutrient loss across the region. It then looked at the different levels of controls to farming based on that risk. I consider physiographics resonates with the concept of ki uta ki tai anticipated in the NPSFW.
- 132.** That physiographics was incorporated so thoroughly into the pSWLP as notified is concerning given the matters raised though the hearings process and decision. The matters summarised in Mr McCallum-Clark's evidence [paragraph 225] are, I think, fundamental considerations when drafting planning provisions, particularly rules - in particular whether or not physiographics has the ability to protect water quality risks from different land uses at a farm scale. I understand that it was the belief that this was what physiographics was intended to do that made it resonate with Ngā Rūnanga. Even more important though is the coarseness of the scale of mapping that was intended to apply at a farm scale. The use of mapping within a plan should be commensurate with the scale at which things are to be managed. So while I consider there is merit in the approach to physiographics as a mechanism, I cannot agree with the Ngā Runanga appeal point that seeks its reinstatement into the rules within the pSWLP. After consideration of the evidence of Mr McCallum-Clark, Dr Snelder and Mr Rodway, I do not believe the alternative approach suggested by Ngā Rūnanga to provide for site-specific information in consent applications [as discussed paragraph 130 above] would provide for the ability to reinstate physiographics in the rule because the mapping and source data is too coarse.
- 133.** Physiographics is a model that was created in Southland. It may be that the provisions can be developed using other tools and models that achieve the same intent. However, I would be concerned that it would take time to develop an alternative tool with the necessary rigor for use in the pSWLP. I am concerned about how or if Rule 20 in the pSWLP as drafted would achieve the same outcomes intended by physiographics in respect to managing risks of land use according to the ability of the land to absorb that risk.

- 134.** I therefore consider that it is preferable to maintain the integrity of the physiographics approach by including stronger and more directive language in the policies relating to physiographics to guide decision-making on consent applications, and to give some direction for the FMU process. I note that this would give effect to RURAL.5 in the SRPS which requires rural land is sustainably managed and land practices are encouraged for reasons including water quality is maintained or enhanced and the mauri of the water and soils is safeguarded.
- 135.** Ngā Rūnanga has a separate appeal point on the wording of physiographic policies 5 (Central Plains), 9 (Old Mataura), 10 (Oxidising), 11 (Peat Wetlands) and 12 (Riverine). The appeal point relates to the use of the term “*decision-making generally not granting*”. Ngā Rūnanga seek the wording “*strongly discouraging the granting of*” be used instead. The reason for the appeal point is that this provided no certainty that water quality would be maintained.
- 136.** Each of the policies provides a directive to decision making with regard to proposals increasing the number of dairy cows or increasing areas of intensive winter grazing where contaminant losses will increase as a result of the proposed activity. This is clearly directed at new or expanding activities rather than continuation of existing activities. I consider that, given the overall state of water quality referred to above and in the evidence of Dr Kitson, a precautionary approach is appropriate with regard to new activities in the interim until the FMU process develops limits and methods to manage to those limits. As the evidence of Mr McCallum-Clark [paragraph 229] identifies, I also understand from the Environment Court in *Appealing Wanaka Inc v Queenstown Lakes District Council*³⁶ that “strongly discourage” is close to but not a directive or prohibitive policy. Mr McCallum-Clark has in this instance used the wording to apply to cultivation of land in the Alpine Zone as a non-complying activity. In my opinion a strong directive discouraging farming of increased numbers of dairy cows, or increased areas of intensive winter grazing where contaminant losses will increase as a result of the proposed activity, is also appropriate. I consider this direction is important in the redrafting of the rules that will be addressed when the Court comes to address this later in the process as a part of Topic B.

³⁶ *Appealing Wanaka Inc v Queenstown District Council* [2015] NZEnvC 139.

137. At this time I note that non-complying activity status was recognised in the pSWLP as notified for:
- (a) any increase over 20ha of intensive winter grazing Old Maitara and peat wetlands after 2018; and
 - (b) any increase in dairy farming of cows beyond the number specified in a discharge consent for agricultural effluent after 30 May 2016 in the Old Maitara or Peat Wetlands was a non-complying activity.
138. I also note the decision on the pSWLP considered it was appropriate that Central Plains, Oxidising and Riverine be extended the same restrictions as Old Maitara and Peat Wetlands. This was considered appropriate to the “widely accepted aim of the Plan to ‘hold the line’ on water quality”³⁷. The policies would prompt decision-makers to avoid enabling specific farming activities that would lead to increased losses of contaminants from areas known to be particularly susceptible to nutrient loss. However the broader decision resulted in a rules regime where any activity not meeting the permitted or restricted discretionary rules was discretionary, thus weakening the intended direction for activities in these areas.

NGĀI TAHU POLICIES

Policy 1

139. Ngā Rūnanga is a section 274 party to appeals and opposes the relief sought by Federated Farmers to remove reference to “interests” in part (3) of Policy 1. Policy 1 refers to enabling papatipu rūnanga to [emphasis added]:

... effectively undertake their kaitiaki responsibilities in freshwater and land management through Environment Southland:...

*(3) reflecting Ngāi Tahu values **and interests** in the management of and decision-making on freshwater and freshwater ecosystems in Southland/Murihiku (includes the Southland Region), consistent with the Charter of Understanding.*

140. I agree with Mr McCallum-Clark’s evidence [at paragraphs 2-4] that it is appropriate to retain the term “interests” to give effect to Objectives D1 and

³⁷ pSWLP, *Report and Recommendations of the Hearings Commissioners*; paragraph 128

Policy D1 of the NPSFW. For that reason alone, I consider that the retention of this wording is appropriate.

141. Federated Farmers' appeal point relates to commercial interests of Ngāi Tahu. They are concerned that the reference could result in these being afforded greater weight than other potentially competing interests in Council decisions³⁸.
142. I agree with Federated Farmers that interests may include commercial interests. Ngāi Tahu has, for example, commercial property development, forestry, farming and tourism interests. However I consider this policy is clearly framed to refer to kaitiaki responsibilities relating to freshwater and fresh water and fresh water ecosystems.

Objective 15 and Policy 3

143. Ngā Rūnanga is a section 274 party to appeals by Fish and Game regarding both Objective 15 and Policy 3 relating to taonga species. Ngā Rūnanga in its submission on the pSWLP:
- (a) supported Objective 15 as notified and considered the amendment of the Objective in the decision to be a further improvement; and
 - (b) sought Policy 3 be amended to avoid, as a first priority, or to otherwise manage activities that adversely affect taonga species.

144. Objective 15 of the decision reads as follows:

Taonga species, as set out in Appendix M, and related habitats, are recognised and provided for.

145. Policy 3 provides for the management of activities that adversely affect taonga species, identified in Appendix M (**Appendix C** of this statement).
146. Ngā Rūnanga support Fish and Game's appeal on Objective 15 and Policy 3. The Fish and Game appeal seeks that:

³⁸ Federated Farmers of New Zealand (Southland Province); Notice of Appeal to the Environment Court Against Decisions on the Proposed Southland Water and Land Plan (as amended 21 September 2018); paragraph 3.

- (a) Objective 15 is reworded so that taonga species, and their related habitats, are recognised and protected rather than recognised and provided for; and
- (b) Policy 3 is reworded to manage activities that adversely affect the taonga species and their habitats, not just the species itself.

147. In relation to the proposed new wording for Objective 15, I note that protection of species implies preservation against collecting hunting, or development. As outlined in Mr Skerrett's evidence, taonga species were included in the Ngāi Tahu Treaty Settlement Act because of their fundamental importance to practicing mahinga kai³⁹. Mr Skerrett further discusses how the clearance of land not only reduced taonga species but also access to the resources which quickly became limited and with very little protection outside of National Parks. He discusses how Ngāi Tahu furthermore have a kaitiaki responsibility to restore healthy populations of taonga species.⁴⁰

148. The SRPS does not include objectives or policies specifically referring to taonga species. Policy TW.4 provides for resource management decisions are exercised in a manner that recognises and provides mahinga kai and the mauri and wairua of natural resources. Policy BIO.8 also identifies Tangata whenua values and interests to be incorporated into the management of indigenous biodiversity.

149. I consider the proposed amendments to the Objective could exclude Ngāi Tahu ki Murihiku from practicing mahinga kai in a number of circumstances. This would be inconsistent with s6(e) of the RMA and with s288 NTCSA which acknowledges the cultural, spiritual, historic, and traditional association of Ngāi Tahu with the taonga species. I consider an appropriate compromise position to that of Fish and Game's appeal point would be to reword the Objective to read as follows:

Taonga species, as set out in Appendix M, and related habitats, are recognised and sustained.

³⁹ Mr Skerrett's evidence, paragraph 51.

⁴⁰ Mr Skerrett's evidence, paragraphs 57 - 61

150. Ngā Runanga is a section 274 party in support of the Royal Forest and Bird Protection Society of NZ (**Forest and Bird**) appeal point that seeks to make Waituna Lagoon subject to its own separate FMU process.
151. Waituna Lagoon is a statutory acknowledgement area⁴¹ I am aware that Te Ao Marama Inc are working closely with Environment Southland and other parties to improve the health of the lagoon. Ngā Rūnanga shares the concern of Forest and Bird that the values of, and therefore limits set, for Waituna could be lost in discussion of the wider catchment.
152. The evidence given by Mr Ward for Environment Southland and endorsed by Dr Kitson show that it is a stressed lagoon with poor water quality that, without interventions, will continue to decline. The evidence given by Dr Lloyd for Environment Southland and endorsed by Dr Kitson⁴² also shows that a large proportion of the wetland loss (1990-2012) has occurred in the Waituna Lagoon catchment and the catchment is below the bottom line for ecosystem health.
153. I agree with Ms Robertson for the Council that Waituna could be addressed as a sub-catchment within the Maitara FMU rather than as a separate FMU. I note Ngā Rūnanga supported the Plan with Waituna being a part of the Maitara Freshwater Management Unit. Whichever approach is adopted, I consider it must ensure that the necessary values and limits required to improve the Waituna Lagoon are not lost or diminished by discussions at the catchment level.

DEFINITION OF WETLAND AND NATURAL WETLAND

154. Ngā Runanga are a 274 party opposing the appeal by Horticulture New Zealand to amend the definitions of wetland and natural wetland. Mr McCallum-Clark has recommended the deletion of the definition of wetland from the Plan [paragraph 275]. I agree that this is appropriate as this term is defined in the RMA and repetition of RMA terms within statutory plans is unnecessary. The central concern of Horticulture NZ appeal appears to be the scope of the rules regarding


⁴¹ NTCSA Schedule 73 Statutory Acknowledgement for Waituna Wetland

⁴² Dr Kitson's evidence, paragraphs 105 and 147

wetlands and this matter will be addressed when the Court comes to consider those later in the process as a part of Topic B.

CONCLUSION

- 155.** On the basis of my assessment of the appeal points of Ngā Rūnanga listed in paragraphs 10 and 11 of my evidence, I consider that these points provide for some significant improvement to the Objectives in the pSWLP. These changes are appropriate in order to ensure the pSWLP is consistent with the SRPS, the NPSFW and the purpose of the RMA, and to address values of significance to Ngā Rūnanga. In general, I support the requests made by Ngā Rūnanga except as specifically identified in the body of this evidence.

A handwritten signature in black ink that reads "Davidson". The signature is written in a cursive style with a large, sweeping initial 'D'.

Treena Davidson

15 February 2019

Appendix A

Summary of policies in Te Tangi a Taura Ngai Tahu Ki Murihiku Natural Resource and Environmental Iwi Management Plan

The following is not the complete list of relevant policies in Te Tangi a Taurira but those selected have been provided to assist in the understanding of the evidence presented.

Pg	Part 1
24	The kaupapa of this Plan is Ki Uta Ki Tai – From the Mountains to the Sea.
	It is considered our duty to leave the environment in as good or even better condition than received from our tūpuna. The historical practices were established by our tūpuna and must be passed on to ngā uri kei te heke mai, the generations to come.
27	The presence of Mauri in all things entrusts people to appreciate and respect that resource. In this way, overuse, depletion or desecration of natural resources is not an accepted practice.
	Part 3
97	Ensure that development and tourism in Fiordland does not compromise the pristine state of Fiordland waters.
	Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future development and commercial activities in Fiordland, including the export of water.
	Use the waters of Fiordland as a baseline for water quality standards in other areas of Murihiku.
98	Ensure that all native fish species have uninhibited passage between lakes, rivers and sea, where such passage is a natural occurrence, through ensuring continuity of flow ki uta ki tai, and fish passageways within dam structures.
	Require the development and implementation of monitoring regimes to ensure that any adverse effects (including existing or potential loss of tuna/eel) on the health of mahinga kai resources and/or their habitats are identified and addressed.
	Require, if deemed necessary, that companies provide opportunities for iwi representatives to participate in monitoring.
	Ensure that Ngāi Tahu ki Murihiku are involved in the setting of consent conditions (during consultation) associated with any and all resource consents for hydro power development activities.
	Avoid taking any more water from the Waiau River for the purposes of hydroelectric power generation.
	Require that the costs of elver transfer are met by the electricity generator where there is a cause-effect link.
103	Encourage the protection and appropriate valuation of native forest ecosystems as natural capital: the water, soil and biodiversity, and the essential ecosystem services they provide.
	Promote the integration of biodiversity management across land ownership land use boundaries.
	Any selective felling and extraction of indigenous trees should be: a. on a sustainable yield basis, under sustainable forest management accord; b. include accidental discovery

	protocol; c. protection of waterways.
	That, where possible, the owners of indigenous forests will be encouraged to enter into protective heritage covenants.
	Part 3.4 High country and foothills
113	Support recommendations for use of marginal strips, buffer zones, riparian margins or other protection mechanisms adjacent to waterways for protection of mahinga kai, water quality and biological diversity (applies to both freehold and conservation lands).
	Require that protection and access mechanisms are developed for all wāhi tapu and wāhi taonga areas located on pastoral lease lands.
	Protect the headwaters of rivers for protection of mauri and ensure a continuous healthy flow from the mountains to the sea.
	Acknowledge that with time natural food supplies have been removed. The adaptive quality of some species now relies on introduced food supplies. Thought must be given to circumstances where retaining introduced species rather than removing them, is in fact in the best interest and longevity of the species. Those involved in the tenure review process must consider effects of the removal of some introduced species on existing populations.
115	Ensure input where immediate protective mechanisms are employed to prevent further damage, i.e. buffer zones.
	Encourage sustainable pastoral farm land management practices whereby impacts on soil, vegetation and water quality are minimised.
	Support improvement of soil production levels by maintaining balanced nutrient levels and avoiding soil erosion and loss of organic matter.
116	Advocate for recognition of burning practices as unsustainable. Such practices have long term impacts on nutrient sequestering.
	Discourage the draining of peat bog areas for pasture which were in the past and still remain a significant mahinga kai resource source.
	Encourage development of riparian zones and buffer strips along both sides of all watercourses to minimise effluent and nutrient runoff and prevent stock access.
	Discourage the clearing of indigenous vegetation for boundary fencing. Where unavoidable, clearing of indigenous vegetation for boundary fencing must be kept to a minimum.
	Require that all water abstraction activities associated with pastoral farming practice are efficient. This is reflected particularly in respect to sustainable irrigation design, delivery and management. Large scale water abstraction (which has an environmental effect) should be avoided.
	Prevent direct stock access to waterways and provide for watering of stock using efficient pumping mechanisms to paddock troughs. This is to avoid the damage by stock to lake or river edges and riparian zones.
	Promote at all times the protection of all native aquatic species.
	Maintain appropriate minimum flow levels to ensure that native aquatic species have

	uninhibited passage between high country lakes and rivers and the sea at all times. Any structure must provide for fish passage.
	Avoid any discharge of contaminants to water as a result of pastoral farming activity, including pest control poisons.
119	Riparian and buffer zones around waterways must be protected to ensure their ecological function is maintained and that mahinga kai and waterway ecosystems are protected.
	Vehicle access must ensure that buffer and riparian zones are recognised and observed around all waterways, including drains, springs, wetlands, tarns and aquifers.
	Ensure that access arrangements are part of forestry operation plans to ensure that local iwi maintain access to cultural sites, materials, and mahinga kai within the forest boundaries.
	Maintain uninhibited fish passage within any waterway flowing within and adjacent to the forestry plantation.
	Avoid adverse effects associated with forestry operation activities such as earthworks, increased sedimentation, harvesting, stream crossings, plant and animal pest control, vegetation clearance, channel modification and preparation of the land for new and replanting of trees. Such activities shall form part of a company's environmental management plan and/or standards.
	Forestry operations should be located in appropriate areas where the effects of its activities on the surrounding environment will be minimised. Consultation with Ngāi Tahu ki Murihiku into the significance of a possible site is recommended to assess environmental, cultural and heritage values. This includes wetland areas, mahinga kai sites, wāhi tapu, wāhi taonga and other culturally significant sites.
120	Encourage the replanting after felling or, where land has been newly converted, as soon as possible to reduce sedimentation and loss of topsoil.
	Recognise that small woodlot areas on farms can create adverse effects if not consented. Educating farmers in respect to management of such woodlots is encouraged.
	Avoid clear felling operations which can create increased sedimentation loading in waterways.
	Avoid impacts on water quality within a forest licence by excluding stock access by way of fencing to prevent damage to riparian zones and waterways.
	Culverts should be built to regional council standards and should be placed in streams and in the streambed to minimise debris build up/sedimentation.
	Instream values should be protected against negative impacts of water yield.
	Require that forestry operation plans identify all roading, crossing of waterways and access ways prior to commencement. Such information should be included in environmental management plans and/or standards. Any maintenance or upgrading should also be reported to Ngāi Tahu ki Murihiku.
	Avoid the draining of wetland areas for forestry planting.

	Avoid forest planting that would have an adverse effect on a wetland.
121	Encourage avoidance of adverse effects associated with the following forestry activities: a. earthworks and increased sedimentation; b. harvesting; c. poor water quality; stream crossings; plant and animal pest control; d. vegetation clearance and habitat loss.
	Encourage protection of specific mahinga kai habitats, wāhi tapu and wāhi taonga sites within forestry boundaries.
	Encourage the establishment of riparian and buffer zones around waterways to ensure waterway ecosystems and mahinga kai are protected.
	Encourage stock exclusion by way of fencing from waterways and riparian zones to avoid impacts on water quality.
123	Instream values should be protected against negative impacts of new development, particularly with respect to appropriateness, discharges, abstraction, and effects over time.
	Deter disrespectful activity by tourists or other visitors within areas designated as culturally significant. This includes education with respect to depositing of food, sewage, or rubbish away from designated sites and defacing of sites.
125	Ensure protection and enhancement of the mauri or life supporting capacity of all high country and foothill waterways.
	Ensure that pest plant control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.
	Encourage long-term solutions to aquatic plant pest problems, such as riparian shading and reduction of nutrients flowing into waterways and drains.
126	That all research linked to biosecurity within Murihiku that relates to significant flora, fauna, resources and places should include consultation provisions with Ngāi Tahu ki Murihiku.
	Advocate that all management decisions shall take into account the protection and survival of indigenous species of flora and fauna (rare and not rare, and including taonga species contained in the Ngāi Tahu Claims Settlement Act 1998) in their natural habitats and ecosystems.
	Ensure that animal/bird pest control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.
126	Mahinga kai is about mahi ngā kai – it is about places, ways of doing things, and resources that sustain the people. It includes the work that is done (and the fuel that is used) in the gathering of all natural resources (plants, animals, water, sea life, pounamu) to sustain well-being. This includes the ability to clothe, feed and provide shelter. The loss of mahinga kai is attributed to habitat degradation, resource depletion, legislative barriers that impede access, changes in land tenure that affect ability to access resources and the introduction of predators that have severely reduced the traditional foods of Ngāi Tahu.
127	Promote the protection, restoration and enhancement of indigenous biodiversity.
	Advocate for the protection, restoration and enhancement of waterways, riparian margins, wetlands, and tarns as a means of protecting and enhancing indigenous biodiversity.

	Maintain uninhibited fish passage within any waterway linking the high country lakes and rivers to the coast.
	Avoid compromising native aquatic species by building dams, culverts and weirs or through any other water abstraction methods.
128	Oppose the use of any hazardous substances where it is likely that such use will have an affect on water quality and land, influencing the life supporting and productive capacity of both.
	Generally support the introduction of biological agents over alternative use of toxic or residual herbicides for plant pest control. However such introduction of biological control agents should be assessed with respect to the degree of risk to indigenous vegetation, the degree of risk of the pest plant to indigenous vegetation, and the benefits that introducing such an agent would have to indigenous species and ecosystems.
	Become involved in the on-going monitoring and assessment of continued use of approved biological control agents.
	Support best practice for the transportation of hazardous substances on terrain where there is a high degree of spill risk. This is in coastal, river/lake edge and mountainous areas. Approved containers in which substances are carried are required.
	Advocate for appropriate consultation over the introduction of any genetically modified organism. Ngāi Tahu ki Murihiku shall have time to assess any social or cultural concerns associated with such introduction and the impacts this will have on aspects of rangatiratanga and kaitiakitanga.
	Part 3.5 Southland plains
137	Ensure that Ngāi Tahu ki Murihiku are provided with the opportunity to participate through pre hearing meetings or other processes in the development of appropriate consent conditions for discharge consents, including monitoring conditions.
	Discharge of farm effluent to land must always require resource consent.
	Sustain and safeguard the life supporting capacity of soils for future generations.
	Avoid using high-risk soils of high permeability, including Waikoikoi clay and peat, for spray irrigation of effluent.
	Oppose the discharge of dairy farm effluent to water.
	Require soil risk assessments (type and percolation of the soils) prior to consent for discharge to land, to assess the suitability and capability of the receiving environment. Effluent should be applied at rates that match the ability of land to absorb it.
	Require best practice for land application of managing farm effluent, in order to minimise adverse effects on the environment. This includes: a. application rates that are specific to region and soil type; b. use of low rate effluent irrigation technology; c. use of appropriate irrigation technology to avoid irrigating over tile drains (e.g. K-line); d. storing effluent when the soil is too wet or heavy to irrigate; e. storing effluent when heaving pugging by stock has occurred; f. sealed storage ponds to avoid leaching of nutrients to groundwater; g. avoiding

	ponding of effluent on paddocks; h. monitoring of soils and groundwater (see Policy 16); i. developing contingency plans (e.g. for exceptionally wet years).
	Require that farm management plans include the location and extent of tile drains on the farm, in order to ensure that farm workers know where drains are when they irrigate.
	Advocate for the re-evaluation of existing discharge to land consents to develop better systems where needed.
	Avoid any surface run off /overland flow, ponding or contamination of water resulting from the application of dairy shed effluent to pasture.
	Require that farm management plans include provisions for the establishment and maintenance of riparian areas, to mitigate the effects of discharge.
	Require the establishment of appropriate buffer zones between discharge activities and waterways (including ephemeral and waterways <3 m). The size of buffer zones should reflect local geography (e.g. size of the waterway, nature and extent of existing riparian area, boundary fences).
	Require the establishment of buffer zones of at least 100m between discharge activities and bores.
	All spray drift, as a product of spray irrigation of effluent, must be managed and contained within the boundaries of the consent area.
138	Require monitoring provisions as a condition of consent on any discharge to land. This should include monitoring water quality (e.g. representative water samples upstream and downstream), and soil nitrogen loads.
	Advocate for duration not exceeding 25 years for discharge of farm effluent to land consent applications, with opportunities for review within that time. The duration of consents must reflect potential risk to soils and water.
	Promote education and awareness of Ngāi Tahu ki Murihiku values associated with water, and how those values can be adversely affected by activities involving the discharge of contaminants to water.
	Assess proposed wastewater discharge activities in terms of: a. type/ nature of the discharge; b. location and sensitivity of the receiving environment; c. cultural associations with location of operations; d. actual and potential effects on cultural values; e. available best practice technology; f. mitigation that can occur (e.g. using plants to filter waste, discharging at specific times to minimise impact, treatment options) g. community acceptability; h. cost.
	Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Even if the discharge is treated and therefore considered “clean”, it may still be culturally unacceptable. Generally, all discharge must first be to land.
139	Wastewater disposal options that propose the direct discharge of treated or untreated effluent to water need to be assessed by the kaitiaki rūnanga on a case by case, individual waterway, basis. The appropriateness of any proposal will depend on the nature of the proposal, and what waterway is involved. Individual waterways possess their individual

	mauri and values, and kaitiaki rūnanga are in the best position to assess the potential impacts of a proposal on such values.
	Encourage creative, innovative and sustainable approaches to wastewater disposal that make use of the best technology available, and that adopt principles of waste reduction and cleaner production (e.g. recycling grey water for use on gardens, collecting stormwater for a pond that can then be used for recreation in a new subdivision).
	Require that the highest environmental standards are applied to consent applications involving the discharge of contaminants to land or water (e.g. standards of treatment of sewage).
	Require soil risk assessments (type and percolation of the soils) prior to consent for discharge to land, to assess the suitability and capability of the receiving environment. Wastewater loading rates (mm/day) must reflect effluent quality and soil properties.
	Encourage the establishment of wetland areas, where practical, to improve discharge to land activities, through allowing Papatūānuku the opportunity to filter and clean any impurities.
	Require the use of buffer zones, bunds and other mechanisms to prevent wastewater from entering waterways.
	Any discharge activity must include a robust monitoring programme that includes regular monitoring of the discharge and the potential effects on the receiving environment. Monitoring can confirm system performance, and identify and remedy any system failures.
	Require that large scale wastewater disposal operations (e.g. town sewage schemes, industry) develop environmental management plans, including contingency plans to cope with any faults, breakdowns, natural disasters, or extreme weather events (e.g. cash bonds for liability).
	Duration of consent for wastewater disposal must recognise and provide for the future growth and development of the industry or community, and the ability of the existing operations to accommodate such growth or development.
	Recommend a duration not exceeding 25 years, for discharge consents relating to wastewater disposal, with an assumption that upon expiry (if not before), the quality of the system will be improved as technological improvements become available. In some instances, a lesser term may be appropriate, with a condition requiring the system is upgraded within a specified time period.
	Require conditions of consent that allow for a 5-year review of wastewater disposal activities. During review, consent holders should be required to consider technological improvements. If improvements are available, but not adopted, the consent holder should provide reasons why.
	Encourage developers and consent applicants to provide site visits for tangata whenua representatives to observe proposed wastewater treatment systems. Site visits enable ngā rūnanga representatives to see what is proposed “on the ground”.
140	Require that the establishment of any new landfill site for solid waste disposal include

	provisions for leachate collection, impermeable liners and landfill gas management systems, in order to minimise adverse effects on the environment.
141	Require that solid waste disposal does not occur near groundwater bores, waterways, wāhi tapu or wāhi taonga sites.
	The water quality of any surface waterbody or groundwater resource must not be deteriorated to any extent (following a zone of reasonable mixing) due to industrial activity. The size of a zone of reasonable mixing needs to be determined on a case-by-case basis of which Ngāi Tahu ki Murihiku must be consulted. Factors influencing zone size includes; – effluent flow rate and concentration; – design of the outfall; – depth, velocity and rate of turbulent mixing of the receiving water; and – ambient concentrations in the receiving water.
142	Apply Ngāi Tahu ki Murihiku policies on wastewater disposal (Section 3.5.2) and solid waste management (Section 3.5.3) to discharge consent applications for industrial activities.
	Require that washdown of stock transport occur in designated areas, well away from surface waterways.
	Encourage farmers to stand their stock to allow them to empty out prior to pick up by stock transport trucks, to reduce volume of effluent in trucks.
	Require that stock transport companies adopt best practice for containment/storage of stock discharges in transport, for truck washdown. Companies should also encourage standing of stock prior to stock pick up.
	Reduce the amount and likelihood of stock effluent spillage on roads through advocating for stock effluent disposal facilities.
	Discourage the regular and intensive use of roads for moving stock, and promote the use of underpasses, overpasses and similar facilities to reduce the need for such activities.
143	Require iwi involvement in local authority planning processes that establish zoning provisions, including decisions pertaining to where subdivision and development is considered appropriate or inappropriate.
	Require that subdivision proposals provide evidence of long term planning and cumulative effects assessments.
144	Advocate for the use of esplanade reserves, strips and other similar provisions on those waterways where such provisions are deemed necessary to protect and provide for waterway health and access values.
	Promote the use of restrictive covenants and consent notices on certificates of title on new lots created by subdivision applications, to prevent the use of plants considered pest species in landscaping and gardens.
	Require that the disposal of stormwater occurs in a manner that avoids inundation of land within or adjoining the subdivision, and does not adversely affect the quality of surface and groundwater.
145	Any earthworks or roadworks near rivers must have appropriate measures in place to avoid

	contaminants (including dust, sediment run-off from stockpiles or any hazardous substance) from entering waterways that may cause contamination, discolouration, or siltation in such waterways.
147	Avoid adverse effects on land, water, mahinga kai resources and places and biodiversity as a result of mining.
	Avoid any discharge of contaminated water (e.g. stormwater) to surface or groundwater as a result of mining activity.
	Work with local authorities and other statutory agencies involved in freshwater management to ensure that cultural values and perspectives associated with freshwater management are reflected in statutory water plans, best practice guidelines and strategies, and in resource consent processes for activities involving water.
	Protect and enhance the mauri, or life supporting capacity, of freshwater resources throughout Murihiku.
	Promote the management of freshwater according to the principle of ki uta ki tai, and thus the flow of water from source to sea.
	Promote catchment management planning (ki uta ki tai), as a means to recognise and provide for the relationship between land and water.
	Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future development and commercial activities in Fiordland, including the export of water.
149	Promote river management that adopts the priorities established in the Te Rūnanga o Ngāi Tahu Freshwater Policy 1997. The priorities are: Priority 1: Sustain the mauri of the waterbodies within the catchment. Priority 2: Meet the basic health and safety needs of humans (drinking water). Priority 3: Protect cultural values and uses. Priority 4: Protect other instream values (indigenous flora and fauna). Priority 5: Meet the health and safety needs of humans (sanitation). Priority 6: Provide water for stock. Priority 7: Provide for economic activities including abstractive uses. Priority 8: Provide for other uses.
	Management of our rivers must take into account that each waterway has its own mauri, guarded by separate spiritual guardians, its own mana, and its own set of associated values and uses.
	Adopt a precautionary approach for any activity involving a waterway where there is an absence of detailed knowledge of that waterway (ecology, flow regimes, species, etc).
	Require that rivers recognised as Statutory Acknowledgements be recognised for their special associations to Ngāi Tahu beyond the expiry date of 20 years. This means that places identified as Statutory Acknowledgements should continue to be: – Identified in relevant district and regional plans and policy statements as notice of their cultural importance to Ngāi Tahu (noting on plans). – Considered a trigger for a notice of application to Ngāi Tahu with respect to resource consents relating to, or impacting on, such areas (notice of applications). – Given regard to by Councils, the Environment Court and Historic Places Trust when decisions are made about who has the right to comment and be listened

	to, or to appear in court (Standing). – Accepted as evidence of the relationship of Ngāi Tahu with a particular area in any proceedings under the RMA or Historic Places Act.
	The establishment of river flow regimes (e.g. minimum flows) must reflect the principles of ki uta ki tai, and thus river flow requirements from source to sea, including the wetlands, tributaries and waipuna that are associated with that river flow.
	The establishment of environmental flow regimes must recognise and provide for a diversity of values, including the protection of tangata whenua values,
	Ensure that all native fish species have uninhibited passage from the river to the sea at all times, through ensuring continuity of flow ki uta ki tai.
150	Promote, where appropriate, the use of Freshwater Mātaitai, Water Conservation Orders (WCO), rāhui, and similar tools to protect the rivers of Murihiku, where those rivers are under threat from competing water uses, and/or when there are outstanding cultural, amenity or intrinsic values that require protection.
	Promote the use of State of the Takiwā environmental monitoring for Murihiku river catchments (see case study below page 151).
	Promote the use of the Cultural Health Index (CHI) ¹⁰ as a tool to facilitate monitoring of stream health, and to provide long term data that can be used to assess river health over time.
	Use riparian enhancement, buffer zones, fencing, and related streamside management tools as conditions of consent to ensure that human use of rivers and their water does not compromise river health.
	Avoid the use of rivers as a receiving environment for the discharge of contaminants (e.g. industrial, residential, recreational or agricultural sources).
	Prioritise the restoration of those waterbodies of high cultural value, both in terms of ecological restoration and in terms of restoring cultural landscapes.
	Ensure that activities in upper catchments have no adverse effect on mahinga kai, water quality and water quantity in lower catchments.
	Promote environmental education programmes that raise awareness about appropriate land management practices adjacent to our rivers, including riparian management. This includes education about avoiding adverse effects of livestock on riparian areas and waterways.
	Oppose any activity that may result in the spread of any exotic alga from contaminated rivers to uncontaminated rivers, for example <i>Didymosphenia geminata</i> (didymo).
157	Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Even if the discharge is treated and therefore considered “clean”, it may still be culturally unacceptable. Generally, all discharge must first be to land. This general policy is a baseline or starting point. From this point, the Rūnanga can assess applications on a case by case basis
	Assess discharge to water proposals on a case by case basis, with a focus on local

	circumstances and finding local solutions.
	Consider any proposed discharge activity in terms of the nature of the discharge, and the sensitivity of the receiving environment.
	When existing rights to discharge to water come up for renewal, they must be considered in terms of alternative discharge options.
158	Encourage the establishment of wetland areas, where practical, as an alternative to the direct discharge to water. Discharge to a wetland area allows Papatūānuku the opportunity to filter and clean any impurities.
	Any discharge activity must include a robust monitoring programme that includes regular monitoring of the discharge and the potential effects on the receiving environment.
	Require robust monitoring of discharge permits, to detect non-compliance with consent conditions. Noncompliance must result in appropriate enforcement action to discourage further non-compliance.
	Promote the use of the Cultural Health Index (CHI) 13 as a tool to facilitate monitoring of stream health, and to provide long term data that can be used to assess river health over time.
	Ngāi Tahu ki Murihiku consider activities involving the discharge of contaminants to water a community issue. For this reason, ngā rūnanga may, where seen as appropriate, recommend that a consent application be notified.
	Strive for the highest possible standard of water quality that is characteristic of a particular place/waterway, recognising principles of achievability. This means that we strive for drinking water quality in water we once drank from, contact recreation in water we once used for bathing or swimming, water quality capable of sustaining healthy mahinga kai in waters we use for providing kai.
159	Require cumulative effects assessments for any activity that may have adverse effects of water quality.
	Avoid compromising water quality as a result of water abstractions.
	Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Generally, all discharge must first be to land.
	Avoid impacts on water as a result of inappropriate discharge to land activities.
	When assessing the effects of an activity on water quality, where the water source is in a degraded state, the effects should be measured against the condition that the water source should be, and not the existing condition of the water source
	Promote the restoration of wetlands and riparian areas as part of maintaining and improving water quality, due to the natural pollution abatement functions of such ecosystems.
	Require the use of buffer zones, riparian areas, bunds and other mechanisms to prevent stormwater and other wastewater from entering waterways.
	Water quality definitions, categories, and standards must be determined, measured, and assessed with cultural values and indicators alongside scientific information. Such

	indicators and values centre on the ability of the waterway to support life, and the fitness of water for cultural uses.
	Require robust monitoring of discharge permits, to detect non-compliance with consent conditions. Noncompliance must result in appropriate enforcement action to discourage further non-compliance.
160	Adopt the precautionary principle when making decisions on water abstraction resource consent applications, with respect to the nature and extent of knowledge and understanding of the resource.
	Support and encourage catchment management plans, based on the principle of ki uta ki tai, to manage the cumulative impacts of water abstractions in a given area.
	In the Southland Plains region, the preference of Ngāi Tahu ki Murihiku is for water takes from bores, as opposed to surface water abstractions.
	Recommend, as a condition of consent, that any application for irrigation puts in on-farm rainwater holding facilities, to help with dairy washdown and irrigation.
161	Encourage water users to be proactive and use water wisely. To encourage best practice and efficient use of water, particularly in terms of: – sustainable irrigation design, delivery and management; – making best use of available water before water levels get too low; – reducing the amount of water lost through evaporation by avoiding irrigating on hot windy days.
	Applications for water abstractions may be required to undergo isotope/chemistry analysis determining where the water came from, and its age. This information will assist in the assessment of potential adverse effects on the water resource.
	Applications for water abstractions may be required to justify the quantities of water requested. Information may need to be provided to Te Ao Mārama Inc. regarding the proposed water use per hectare, estimated water losses, stocking rates, and the level of efficiency for the scheme. This will enable iwi to put the quantity of water sought in context, and ensure that a test of reasonableness can be applied to consents.
	Require catchment based cumulative effects assessments for activities involving the abstraction of water.
	Avoid excessive drawdown of aquifer levels as a result of groundwater abstractions, and to ensure that abstractions do not compromise the recovery of groundwater levels between irrigation seasons.
	Ensure that environmental flow allocation and water management regimes for rivers recognise and provide for the relationship between water quality and quantity.
	Avoid compromising fisheries and biodiversity values associated with spring fed creeks and rivers for the purposes of water abstractions.
	Avoid compromising river health as a result of water abstractions for hydro power generation.
	Encourage the installation of appropriate measuring devices (e.g. water meters) on all

	existing and future water abstractions, to accurately measure, report, and monitor volumes of water being abstracted, and enable better management of water resources.
	Advocate for durations not exceeding 25 years on resource consents related to water abstractions.
	Require, where necessary, a consent condition providing for a review of the volumes able to be abstracted from the bores on the basis of the observed seasonable recovery of groundwater levels. Also include a provision for review of both the annual recovery between individual irrigation seasons and the cumulative effects on longer-term water level recovery.
	Require that Ngāi Tahu are provided with the opportunity to participate through pre hearing meetings or other processes in the development of appropriate consent conditions including monitoring conditions to address our concerns.
	Avoid adverse effects on the base flow of any waterway, and thus on the mauri of that waterway and on mahinga kai or taonga species.
	Oppose any further abstractions/diversions of water from the Waiau River for hydroelectric generation, as current levels of abstractions are having adverse effects on cultural values associated with the river.
	Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to water allocation from freshwater resources.
162	Land use consents to carry out activities in the beds and margins of rivers should include information about ecological, cultural, natural and community values associated with the surrounding areas (e.g. adjacent wetlands, bird nesting sites, instream life, community use of the area; inanga/whitebait habitat).
	Require consent conditions for gravel extraction activities stipulating the use of "work windows" and other methods to ensure that such activities do not: a. disturb roosting and/or nesting sites of birds during the operation/activity; b. adversely effect native fish species (e.g. interrupt spawning); c. cross flowing water with heavy vehicles; d. extract gravel where there is, or there is the potential to be, running water; e. Damage native vegetation on the river bed or riparian area.
	Discourage gravel extraction via beach skimming, except where it is demonstrated that beach areas are aggrading and lateral erosion is a concern.
	Where gravel extraction occurs on beaches that are aggrading, monitoring of streambed elevation must be a condition of consent. The goal must be to maintain bed height.
	Advocate for the creation of habitat ponds to facilitate gravel extraction activities, whereby such activities incorporate restoration of riverine habitat, primarily on inactive reaches of the river system
	Require that the design, construction and maintenance of habitat ponds are such that habitat is created, and not just 'holes' on floodplains or in riverbeds.
	Support and encourage programmes to monitor the effectiveness of habitat ponds as a fishery and waterfowl habitat.

163	Require that placement of culverts and other flood works activities in the beds or margins of waterways is such that the passage of native fish and other stream life is not impeded.
	Recommend that culvert pipes are buried in the streambed, so that gravel can lie in the bottom third of the pipe, thus providing natural habitat in the culvert so that fish can migrate through them.
	Recommend that tracks leading to culverts are designed (e.g. contoured) so that stormwater run off and any effluent on the track is directed away from the stream. Such discharges should be to land and not directly to water.
	Require that that placement of culverts and other flood works activities in the beds or margins of waterways occur at times of low or no flow.
	Require that short term effects on water quality and appearance are mitigated during culvert or flood works construction, and for a settling period following. For example, straw bales may be used to minimise turbidity, and contain discolouration and sedimentation.
164	Work with local authorities and other statutory agencies to ensure that cultural values and perspectives associated with those species and places valued as mahinga kai are reflected in statutory water plans, best practice guidelines and strategies, and in concession and resource consent processes.
	Work towards the restoration of key mahinga kai areas and species, and the tikanga associated with managing those places and species.
	Support the concept of Mahinga kai Cultural Parks as a means of protecting and using specific cultural landscapes within the takiwā that have important mahinga kai associations.
	Consider the actual and potential effects of proposed activities on mahinga kai places, species and activities when assessing applications for resource consent.
	Use the enhancement of mahinga kai places, species and activities to off set or mitigate the adverse effects of development and human activity on the land, water and biodiversity of Murihiku.
	Support mechanisms that enable tangata whenua to access mahinga kai species and resources, such as esplanade provisions and marginal strips adjacent to waterways.
166	Avoid the direct or indirect drainage or modification of any existing wetland area.
	Encourage the establishment of wetland areas, where practical, to improve discharge to land activities, through allowing Papatūānuku the opportunity to filter and clean any impurities.
	Advocate for the restoration and enhancement of wetland areas, as part of any consent application where it is deemed feasible to include such conditions.
	Require that wetlands are fenced in any area where they may be at risk from stock damage.
167	Promote riparian zone establishment and management in Resource Management Act policy, planning and consent processes, as a tool to mitigate adverse effects of land use activities on streams.

	Prioritise the restoration of riparian areas throughout the takiwā.
	Promote riparian zone establishment and management as a tool to improve water quality in the waterways of Murihiku.
	Require that riparian restoration or establishment, when used as a condition of consent or otherwise, uses plant species that are appropriate to the area in which they will be established.
	Protect and enhance taonga Rāranga (plants which produce material used for weaving) associated with riparian areas.
	Avoid stock access to riparian zones and streambeds, except when required for intermittent vegetation control.
	Encourage fencing of streams to protect riparian vegetation, and promote healthy riparian establishment.
	Avoid or remedy any adverse effects of river works activities, culverts, bridges and stock crossings on riparian areas.
	Prevent the use of willows and other exotic species in bank edge planting along waterways.
	Control and, where appropriate, eradicate willow and other noxious weeds and exotic species in riparian areas.
168	Advocate for the protection, restoration and enhancement of waterways, riparian margins, and wetlands as a means of protecting and enhancing freshwater fishery values.
	Avoid stock access to riparian zones and streambeds, except when required for intermittent vegetation control.
	Require fencing of streams to promote healthy riparian establishment and fisheries values.
	Avoid compromising freshwater fishery values as a result of diversion, extraction, or other competing use for water, or as a result of any activity in the bed or margin of a lake or river.
	Ensure that all native fish species have uninhibited passage from the river to the sea at all times, through ensuring continuity of flow ki uta ki tai.
	Require that Fish and Game New Zealand and DOC consult with Ngāi Tahu ki Murihiku with regards to any proposal to release exotic fish species into lakes or rivers (and their tributaries) of Murihiku.
	Ensure the protection of all sites identified as Nohoanga under the Ngāi Tahu Claims Settlement Act 1998, as a means of providing tangata whenua with an opportunity to experience the landscape as our tūpuna once did, and to promote customary practices associated with mahinga kai.

Appendix B

Provisions in the Southland Regional Policy Statement 2017

The following are those Objectives and Policies of the Southland Regional Policy Statement considered relevant to the Appeal by Ngā Rūnanga on the pSWLP

Categories	Objectives / Policies	Wording
Water Quality	Objective WQUAL.1 – Water Quality Goals	<i>Water quality in the region:</i> <i>(a) safeguards the life-supporting capacity of water and related ecosystems;</i> <i>(b) safeguards the health of people and communities;</i> <i>(c) is maintained, or improved in accordance with freshwater objectives formulated under the National Policy Statement for Freshwater Management 2014;</i> <i>(d) is managed to meet the reasonably foreseeable social, economic and cultural needs of future generations.</i>
Water Quality	Objective WQUAL.2 – Lowland Water Bodies	<i>Halt the decline, and improve water quality in lowland water bodies and coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands in accordance with freshwater objectives formulated in accordance with the National Policy Statement for Freshwater Management 2014.</i>
Water Quality	Objective WQUAL.3 – Water in a Natural State	<i>Maintain the quality of water where it is in its natural state.</i>
Water Quality	Policy WQUAL.1 – Overall management of water quality	<i>(a) Identify values of surface water, groundwater, and water in coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and formulate freshwater objectives in accordance with the National Policy Statement for Freshwater Management 2014; and</i> <i>(b) Manage discharges and land use activities to maintain water quality, or improve it, to ensure freshwater objectives are met.</i>
Water Quality	Policy WQUAL.2 – All Waterbodies	<i>Maintain or improve water quality, having particular regard to the following contaminants:</i> <i>(a) Nitrogen;</i> <i>(b) Phosphorus;</i> <i>(c) Sediment;</i> <i>(d) Microbiological contaminants.</i>
Water Quality	Policy WQUAL.3 –	<i>Identify and protect the significant values of wetlands and outstanding freshwater bodies.</i>

	Wetlands and outstanding freshwater bodies	
Water Quality	Policy WQUAL5 – Improve catchment water quality	<p><i>Improve water quality by:</i></p> <p><i>(a) identifying water bodies that are not meeting freshwater objectives, including identifying priority freshwater management units;;</i></p> <p><i>(b) specifying targets to improve water quality within those water bodies within defined timeframes;</i></p> <p><i>(c) implementing management frameworks to meet the targets taking into account;</i></p> <p><i>(i) the values supported by the water body/ies;</i></p> <p><i>(ii) national or legislative standards and requirements;</i></p> <p><i>(iii) the benefits and costs associated with achieving improvement in water quality.</i></p>
Water Quality	Policy WQUAL.6 – Water in Natural State	<i>To manage discharges and land use activities to maintain the quality of water and the associated values where it is in its natural state.</i>
Water Quality	Policy WQUAL.7 – Social, economic and cultural benefits	<i>Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of water resources.</i>
Water Quality	Policy WQUAL.8 – Preference for discharge to land	<p><i>Prefer discharges of contaminants to land over discharges of contaminants to water, where:</i></p> <p><i>(a) discharge to land is practicable;</i></p> <p><i>(b) the adverse effects associated with a discharge to land are less than a discharge to water.</i></p>
Water Quality	Policy WQUAL.9 – Untreated human and animal wastes	<i>Avoid the direct discharge of sewage, wastewater, industrial and trade waste and agricultural effluent to water unless these discharges have undergone treatment.</i>
Water Quality	Policy WQUAL.10 – Siting and Operation	<i>Manage the siting and operation of activities that result in point source discharges of contaminants to land to ensure that adverse effects on groundwater, surface water and coastal water quality are avoided, remedied or mitigated.</i>
Water Quality	Policy WQUAL.11 –	<i>Avoid, as far as practicable, remedy or mitigate the risks that the adverse effects of land use activities and</i>

	Sources of community water supplies	<i>discharges of contaminants have on the sources of community water supplies.</i>
Water Quality	Policy WQUAL.12 – Integrated management	<i>Integrate the management of land use, water quality, water quantity, coast and air, and the use, development and protection of resources wherever possible to achieve the freshwater objectives formulated in accordance with Policy WQUAL.1.</i>
Water Quality	Policy WQUAL.13 – Information gathering	<i>Continue to improve knowledge and understanding of water resources, and the relationship of land use activities with water quality values in water bodies, in Southland to promote the sustainable management of water.</i>
Water Quantity	Objective WQUAN.1 – Sustainably managing the region's water resources	<i>Flows, levels and allocation regimes of surface water and groundwater in the region are developed in accordance with the National Policy for Freshwater Management 2014 to:</i> <i>(a) Safeguard the life-supporting capacity of water, catchments and related ecosystems;</i> <i>(b) Support the maintenance or improvement of water quality in accordance with Policy WQUAL.1;</i> <i>(c) Meet the needs of a range of uses, including the reasonably foreseeable social, economic and cultural needs of future generations;</i> <i>(d) Comply with limits or targets set to achieve freshwater objectives.</i>
Water Quantity	Objective WQUAN.2 – The efficient allocation and use of water	<i>The allocation and use of Southland's water resources:</i> <i>(a) Is efficient;</i> <i>(b) recognises and makes provision for the Monowai and nationally significant Manapōuri hydroelectric generation schemes in the Waiau catchment and the resultant modified flows and levels.</i>
Water Quantity	Policy WQUAN.1 – Instream values	<i>Maintain instream values of surface water that derive from flows and levels of water, while recognising the special circumstances of the Waiau catchment.</i>
Water Quantity	Policy WQUAN.2 – Overalllocation	<i>Avoid over-allocation of surface water and groundwater, and resolve any historical instances of over-allocation, while recognising the special provisions made for the Waiau catchment.</i>
Water Quantity	Policy WQUAN.3 – Regional Plans	<i>Recognise the finite nature of water resources and catchments and identify management regimes in accordance with the National Policy Statement for Freshwater Management 2014 that;</i> <i>(a) provide for the freshwater objectives for surface water and groundwater that derive from flows and levels of</i>

		<p><i>water;</i></p> <p><i>(b) in managing the effects of activities on flows and levels of water in surface and groundwater:</i></p> <p><i>(i) avoid, as far as practicable, significant adverse effects (including cumulative effects);</i></p> <p><i>(ii) remedy or mitigate significant adverse effects only where avoidance is not practicable;</i></p> <p><i>(iii) avoid, remedy or mitigate other adverse effects;</i></p> <p><i>(c) within allocation limits, provide for the current and reasonably foreseeable future needs, and the social, economic and cultural wellbeing, of people and communities</i></p> <p><i>(d) recognise the potential effects of climate change on flows and levels of water and on water availability;</i></p> <p><i>(e) consider the effects of new uses of water on established activities;</i></p> <p><i>(f) are capable of adapting to manage the effects of changing demand on flows and levels of surface water and groundwater;</i></p> <p><i>(g) recognise the outstanding characteristics identified in water conservation orders applying to rivers within the region;</i></p> <p><i>(h) recognise the need for availability of water to enable the Monowai and nationally significant Manapouri hydro-electricity power generation activities in the Waiau catchment to continue, and be enhanced where over-allocation will not occur;</i></p> <p><i>(i) recognise the inter-related nature of all water bodies in a catchment and the need to maintain flows to sensitive habitats within the catchment.</i></p>
Water Quantity	Policy WQUAN.4 – Demand Management	<p><i>Manage demand for water in order to protect instream values of surface water, and ensure freshwater objectives are met, including by:</i></p> <p><i>(a) establishing specific allocation limits;</i></p> <p><i>(b) allocating water to particular uses;</i></p> <p><i>(c) determining the security of supply that should be afforded to water users;</i></p> <p><i>(d) providing for the transfer or exchange of water between users;</i></p> <p><i>(e) encouraging the development of water storage.</i></p>
Water Quantity	Policy WQUAN.5 –	<i>In catchments and/or aquifers where:</i>

	Abstraction Management	<p>(a) <i>there is a high potential for increased use or demand for water;</i></p> <p>(b) <i>current allocation is approaching maximum thresholds set in regional plans;</i></p> <p>(c) <i>adverse effects of taking, use, damming or diversion are likely due to the nature or size of the catchment or aquifer;</i></p> <p><i>the Southland Regional Council will manage the cumulative effects of permitted, Section 14(3)(b) of the Resource Management Act 1991 and consented taking, use, damming or diversion of water, while recognising the specific circumstances of the Waiau catchment resulting from hydro-electric generation.</i></p>
Water Quantity	Policy WQUAN.6 – Efficient Use of Water	<p>(a) <i>Ensure that any water taken from surface water or groundwater is used efficiently.</i></p> <p>(b) <i>Where fresh water bodies are approaching full allocation, consider establishing management provisions to maximise the benefits of using any available water.</i></p>
Water Quantity	Policy WQUAN.7 – Social, economic and cultural benefits	<i>Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of water resources</i>
Water Quantity	Policy WQUAN.8 – Integrated Management	<i>Integrate the management of land use, water quality, water quantity and use and development of resources wherever possible.</i>
Water Quantity	Policy WQUAN.9 – Information gathering	<i>Continue to gather information on Southland’s water resources (including definition of catchment areas) and effects of land use change on flows and levels of surface water and groundwater, to assist with the sustainable management of water and the ongoing development and implementation of water management regimes.</i>
Beds of Lakes and Rivers	Objective BRL.1 – Lake and river bed values	<i>All significant values of lakes and rivers are maintained and enhanced.</i>
Beds of Lakes and Rivers	PolicyBRL.1 – Managing effects on values and physical processes	<p><i>Regional plans shall include policies and methods that:</i></p> <p>(a) <i>while recognising the need for some structures to be located within the beds of rivers and lakes, avoid as far as practicable, and only where avoidance is not practicable, remedy or mitigate adverse effects of activities in the beds of lakes and rivers on:</i></p> <p>(i) <i>natural character;</i></p>

		<p><i>(ii) instream ecological values, including bird habitat;</i></p> <p><i>(iii) historic heritage and cultural values, particularly tangata whenua cultural values, and spiritual values;</i></p> <p><i>(iv) amenity values;</i></p> <p><i>(v) recreational values;</i></p> <p><i>(vi) the performance and operation of critical infrastructure;</i></p> <p><i>(b) manage adverse effects of activities in the beds of lakes and rivers on:</i></p> <p><i>(i) erosion and deposition processes;</i></p> <p><i>(ii) flooding risk, bank stability and drainage capacity;</i></p> <p><i>(iii) the social, economic, cultural and environmental wellbeing of the community;</i></p> <p><i>(c) recognise the outstanding characteristics identified in water conservation orders applying to rivers within the region.</i></p>
Beds of Lakes and Rivers	Policy BRL.2 – Existing uses of lake and river beds	<i>Lawfully established structures and activities in the beds of lakes and rivers will be recognised, including the need for maintenance, enhancement and upgrading, while avoiding wherever practicable, mitigating or remedying, any adverse effects. Where the use, maintenance, enhancement and upgrading of such structures will have no more than minor adverse effects on the environment, these activities will be specifically provided for.</i>
Beds of Lakes and Rivers	Policy BRL.5 – Social, economic and cultural benefits	<i>Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of river and lake beds.</i>
Tangata Whenua	Objective TW.1 – Decision-making and partnerships with tangata whenua	<i>The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are taken into account in a systematic way through effective partnerships between tangata whenua and local authorities, which provide the capacity for tangata whenua to be fully involved in council decision-making processes.</i>
Tangata Whenua	Objective TW.2 – Provision for iwi management plans	<i>All local authority resource management processes and decisions take into account iwi management plans.</i>
Tangata Whenua	Objective TW.3 – Tangata whenua spiritual values and	<i>Mauri and wairua are sustained or improved where degraded, and mahinga kai and customary resources are healthy, abundant and accessible to tangata whenua.</i>

	customary resources	
Tangata Whenua	Objective TW.4 – Sites of cultural significance	<i>Wāhi tapu, wāhi taonga and sites of significance are appropriately managed and protected.</i>
Tangata Whenua	Objective TW.5 – Provision for Māori land and resources	<i>Māori are able to develop and use their land and resources and provide for their social, economic and cultural wellbeing, in a manner that is sustainable.</i>
Tangata Whenua	Policy TW.1 – Treaty of Waitangi	<i>Consult with, and enhance tangata whenua involvement in local authority resource management decision-making processes, in a manner that is consistent with the principles of the Treaty of Waitangi/Te Tiriti o Waitangi.</i>
Tangata Whenua	Policy TW.2 – Partnerships and relationship agreements	<i>Actively foster partnerships and relationship agreements between local authorities and tangata whenua.</i>
Tangata Whenua	Policy TW.3 – Iwi management plans	<i>Take iwi management plans into account within local authority resource management decision making processes.</i>
Tangata Whenua	Policy TW.4 – Decision making	<p><i>When making resource management decisions, ensure that local authority functions and powers are exercised in a manner that:</i></p> <p><i>(a) recognises and provides for:</i></p> <ul style="list-style-type: none"> <i>(i) traditional Māori uses and practices relating to natural resources (e.g. mātaimai, kaitiakitanga, manaakitanga, matauranga, rāhui, wāhi tapu, taonga raranga);</i> <i>(ii) the ahi kā (manawhenua) relationship of tangata whenua with and their role as kaitiaki of natural resources;</i> <i>(iii) mahinga kai and access to areas of natural resources used for customary purposes;</i> <i>(iv) mauri and wairua of natural resources;</i> <i>(v) places, sites and areas with significant spiritual or cultural historic heritage value to tangata whenua;</i> <i>(vi) Māori environmental health and cultural wellbeing.</i> <p><i>(b) recognises that only tangata whenua can identify their relationship and that of their culture and traditions with</i></p>

		<i>their ancestral lands, water, sites, wāhi tapu and other taonga.</i>
Tangata Whenua	Policy TW.5 – Māori land and resources	<i>Assist and enable the use and development of Māori land and resources, in a manner that is sustainable.</i>
Biodiversity	Objective BIO.1 – Understand and identify	<i>Understand the extent of loss of indigenous ecosystems and habitats across the Southland Region and identify those at risk to further loss and degradation.</i>
Biodiversity	Objective BIO.2 – Maintain and protect	<i>Maintain indigenous biodiversity in Southland and protect areas of significant indigenous vegetation and significant habitats of indigenous fauna for present and future generations.</i>
Biodiversity	Objective BIO.3 – Enhance	<i>Enhance the range, extent and condition of indigenous biodiversity in Southland, with a particular emphasis on those areas most at risk to further loss or degradation.</i>
Biodiversity	Policy BIO.1 – Identification of significant areas	<p><i>Identify areas of significant indigenous vegetation and significant habitats of indigenous fauna using the following:</i></p> <p><i>(a) the Schedule of Threatened, At Risk and Rare Habitat Types in Appendix 2 which provides an indication of areas likely to be significant.</i></p> <p><i>(b) Ecological assessments undertaken by a suitably qualified ecologist using the ecological significance criteria listed in Appendix 3 to ascertain whether an area listed is significant or otherwise.</i></p> <p><i>(c) the ecological significance criteria listed in Appendix 3 which incorporate the following matters:</i></p> <ul style="list-style-type: none"> <i>(i) representativeness;</i> <i>(ii) rarity or distinctiveness;</i> <i>(iii) diversity and pattern; and</i> <i>(iv) ecological context;</i> <p><i>(d) in collaboration with landowners the investigation and identification of areas of indigenous vegetation on private land that are likely to be significant</i></p>
Biodiversity	Policy BIO.2 – Protect significant areas	<i>Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the Southland region will be protected and where appropriate enhanced.</i>

		<p><i>In giving effect to this policy, particular regard will be had to the following potential adverse effects:</i></p> <ul style="list-style-type: none"> <i>(i) Fragmentation of, or reduction in the extent of, significant indigenous vegetation or significant habitats of indigenous fauna;</i> <i>(ii) Fragmentation or disruption of connections and linkages between significant ecosystems or significant habitats of indigenous fauna;</i> <i>(iii) Loss of, or damage to, buffering of significant ecosystems or significant habitats of indigenous fauna;</i> <i>(iv) Loss or reduction of rare or threatened indigenous species populations or habitats.</i>
Biodiversity	Policy BIO.3 – Protect coastal indigenous biodiversity	<i>Protect indigenous biodiversity from adverse effects in the coastal environment as set out in Policy 11 of the New Zealand Coastal Policy Statement 2010.</i>
Biodiversity	Policy BIO.4 – Maintain indigenous biodiversity	<p><i>Manage a full range of indigenous habitats and ecosystems to achieve a healthy functioning state, and to ensure viable and diverse populations of native species are maintained while making appropriate provisions for lawful maintenance and operation of existing activities.</i></p> <p><i>In giving effect to this policy, regard will be had to the following potential adverse effects:</i></p> <ul style="list-style-type: none"> <i>(i) Fragmentation of, or reduction in the extent of, significant indigenous vegetation or significant habitats of indigenous fauna;</i> <i>(ii) Fragmentation or disruption of connections and linkages between significant ecosystems or significant habitats of indigenous fauna;</i> <i>(iii) Loss of, or damage to, buffering of significant ecosystems or significant habitats of indigenous fauna;</i> <i>(iv) Loss or reduction of rare or threatened indigenous species populations or habitats.</i>
Biodiversity	Policy BIO.5 – Support biodiversity initiatives	<p><i>Encourage, promote and support biodiversity initiatives to retain, maintain and restore or enhance:</i></p> <ul style="list-style-type: none"> <i>(a) coastal ecosystems and habitats;</i> <i>(b) aquatic ecosystems and habitats; and</i> <i>(c) terrestrial ecosystems and habitats.</i>

Biodiversity	Policy BIO.6 – Gather, monitor, record and report information	<i>Gather, monitor, record and report information on Southland’s indigenous biodiversity including the effects of activities, pests and climate change. The focus will be on:</i> <i>(a) Identifying the current state of indigenous biodiversity, including extent and ecosystem health and functioning.</i> <i>(b) Identifying trends in the state of indigenous biodiversity.</i> <i>(c) Identifying threats to indigenous biodiversity.</i>
Biodiversity	Policy BIO.7 – Active management	<i>Promote an active and integrated management approach to maintaining and restoring or enhancing indigenous biodiversity through methods including the Regional Pest Management Plan for Southland, and advice and information on pest management, fencing and planting.</i>
Biodiversity	Policy BIO.8 – Tangata whenua	<i>Recognise the role of tangata whenua as kaitiaki, by providing for:</i> <i>Tangata whenua values and interests to be incorporated into the management of indigenous biodiversity;</i> <i>(a) Consultation with tangata whenua regarding the means of maintaining and restoring or enhancing habitats identified in accordance with Policy BIO.1 that have particular significance to tangata whenua;</i> <i>(b) Active involvement of tangata whenua in the protection of cultural values associated with indigenous biodiversity;</i> <i>(c) Customary use of indigenous biodiversity according to tikanga.</i>
Biodiversity	Policy BIO.9 – Biodiversity offsets and environmental compensation	<i>In addressing significant residual adverse effects (i.e. those effects left after all the appropriate avoidance, remediation, or mitigation actions have been taken), local authorities will consider the use of any biodiversity offset and/or environmental compensation measures offered by an applicant.</i>
Biodiversity	Policy BIO.10 – Role of landowners	<i>Recognise the critical role of private landowners in maintaining or enhancing and actively managing the remaining indigenous biological diversity that occurs on private land.</i>
Historic Heritage	Objective HH.1 – Protection of historic heritage	<i>Historic heritage values are identified and protected from inappropriate subdivision, use and development.</i>
Historic Heritage	Policy HH.2 – Protection of historic heritage	<i>Avoid, mitigate and, where appropriate, remedy adverse effects on historic heritage values from inappropriate subdivision, use and development. On a case-by-case basis take into account factors such as the significance of</i>

		<i>heritage values, financial cost and technical feasibility when making decisions relating to the protection of historic heritage.</i>
Historic Heritage	Policy HH.3 – Integration with new use	<i>Encourage the integration of historic heritage with new subdivision, use and development in both rural and urban areas.</i>
Historic Heritage	Policy HH.5 – Collaborative management	<i>Provide for Southland’s historic heritage resources to be managed in a regionally consistent, collaborative and integrated manner.</i>
Rural land/soils	Objective RURAL.1 – Sustainable use of rural land resource	<i>Achieve sustainable use of Southland’s rural land resource, in respect of:</i> <i>(a) agriculture and primary sector activities;</i> <i>(b) subdivision, use and development activities;</i> <i>(c) earthworks and vegetation clearance activities;</i> <i>(d) the use of soil resources;</i> <i>(e) mineral extraction activities; and</i> <i>(f) on-site wastewater systems.</i>
Rural land/soils	Objective RURAL.2 – Life supporting capacity of soils	<i>Safeguard the life-supporting capacity, mauri and health of soils in rural areas, and prevent or minimise soil erosion and sedimentation from land use soil disturbance.</i>
Rural land/soils	Policy RURAL.1 – Social, economic and cultural wellbeing	<i>Recognise that use and development of Southland’s rural land resource enables people and communities to provide for their social, economic and cultural wellbeing.</i>
Rural land/soils	Policy RURAL.2 – Land use change and land development activities	<i>Manage subdivision, land use change and land development activities in rural areas of Southland, in a way that maintains or enhances rural amenity values and character.</i>
Rural land/soils	Policy RURAL.3 – Land development on steep, mid-altitude and high altitude land	<i>Manage land development activities on steep, mid-altitude and high-altitude land to prevent or minimise the effects of erosion and sedimentation, and minimise changes in catchment water yield.</i>

Rural land/soils	Policy RURAL.5 – Effects of rural land development	<p><i>The effects of rural land development shall be sustainably managed and land management practices encouraged so that:</i></p> <p><i>(a) soil properties are safeguarded;</i></p> <p><i>(b) soil erosion is minimised;</i></p> <p><i>(c) soil compaction and nutrient and sediment loss is minimised;</i></p> <p><i>(d) soil disturbance is reduced;</i></p> <p><i>(e) water quality is maintained or enhanced;</i></p> <p><i>(f) indigenous biodiversity is maintained or enhanced;</i></p> <p><i>(g) the mauri of water and soils is safeguarded.</i></p>
Coast	Objective COAST.3 – Coastal water quality and ecosystems	<i>Coastal water quality and ecosystems are maintained or enhanced.</i>
Coast	Policy COAST.5 – Management of effects on coastal water quality and ecosystems	<i>Avoid, remedy or mitigate adverse effects of land-based and marine activities on coastal water quality and its ecosystems.</i>
	Objective INF.1 – Southland's infrastructure	<i>Southland's regionally significant, nationally significant and critical infrastructure is secure, operates efficiently, and is appropriately integrated with land use activities and the environment.</i>
Infrastructure	Policy INF.1 – Regional, national and critical infrastructure	<i>Recognise the benefits to be derived from, and make provision for, the development, maintenance, upgrade and ongoing operation of regionally significant, nationally significant and critical infrastructure and associated activities.</i>
Infrastructure	Policy INF.2 –	<i>Where practicable, avoid, remedy or mitigate the adverse effects of infrastructure on the environment. In</i>

	Infrastructure and the environment	<p><i>determining the practicability of avoiding, remedying, or mitigating adverse effects on the environment, the following matters should be taken into account:</i></p> <p><i>(a) any functional, operational or technical constraints that require the physical infrastructure of regional or national significance to be located or designed in the manner proposed;</i></p> <p><i>(b) whether there are any reasonably practical alternative designs or locations;</i></p> <p><i>(c) whether good practice approaches in design and construction are being adopted;</i></p> <p><i>(d) where appropriate, and such measures are volunteered by a resource user, whether any significant residual adverse effects can be offset or compensated for; and</i></p> <p><i>(e) (e) the need to give effect to the NPSET (2008) including that planning and development of the transmission system should seek to avoid adverse effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities.</i></p>
Infrastructure	Policy INF.3 – Infrastructure protection	<i>Protect regionally significant, nationally significant and critical infrastructure, particularly from new incompatible land uses and activities under, over or adjacent to the infrastructure.</i>
Infrastructure	Policy INF.6 – Promoting consistent and integrated management of infrastructure across the region	<p><i>Provide for the integrated management of the region’s infrastructure by:</i></p> <p><i>(a) recognising the interconnected nature of natural and physical resources; and</i></p> <p><i>(b) promoting a collaborative and consistent approach to managing infrastructure, particularly infrastructure networks that crosses zone and/or territorial boundaries.</i></p>
Energy	Objective ENG.2 – Use and development of energy resources	<i>Use, development, transmission and distribution of local and regional energy resources is undertaken where the adverse effects on the environment (including communities) are avoided, remedied, mitigated, or where appropriate, and such measures are volunteered by the resource user, offset or compensated for.</i>
Energy	Objective ENG.3 – Generation and use of renewable energy	<i>Generation and use of renewable energy resources is increased.</i>

Energy	Objective ENG.4 – National significance	<i>Recognise and make provision for the national significance of renewable electricity generation activities.</i>
Energy	Policy ENG.2 – Benefits of renewable energy	<i>Recognise and make provision for the development of renewable energy activities, and their benefits, which include:</i> <i>(a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;</i> <i>(b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;</i> <i>(c) using renewable natural resources rather than finite resources;</i> <i>(d) the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;</i> <i>(e) avoiding reliance on imported fuels for the purposes of generating electricity; while appropriately addressing adverse effects.</i>
Energy	Policy ENG.3 – Small and community-scale distributed generation	<i>Encourage and make provision for the development, operation, maintenance and upgrading of small and community-scale distributed renewable electricity generation.</i>
Energy	Policy ENG.4 – Potential sites and sources for renewable electricity generation	<i>Make provision for activities associated with the investigation, identification, and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators.</i>
Energy	Policy ENG.6 – Offsetting and/or environmental compensation	<i>When considering any residual environmental effects (including social effects) arising from the use and development of new energy resources that cannot be avoided, remedied or mitigated, decisionmakers shall have regard to offsetting measures or environmental compensation where appropriate, and such measures are volunteered by the resource user, including measures or compensation which benefit the local environment and</i>

		<i>community affected, including tangata whenua.</i>
Energy	Policy ENG.7 – Effects on local communities	<p><i>Ensure any potential adverse effects on local communities from the ongoing operation and subsequent closure of energy facilities are:</i></p> <p><i>(a) appropriately addressed as part of associated resource consent processes; and</i></p> <p><i>(b) avoided, remedied, mitigated, or where appropriate, and such measures are volunteered by the resource user, offset or compensated for.</i></p>

Appendix C

Proposed Southland Water and Land Plan Appendix M – Taonga Species List

Birds

Name in Māori	Name in English	Scientific name
Hoiho	Yellow-eyed penguin	<i>Megadyptes antipodes</i>
Kāhu	Australasian harrier	<i>Circus approximans</i>
Kākā	South Island kākā	<i>Nestor meridionalis meridionalis</i>
Kākāpō	Kākāpō	<i>Strigops habroptilus</i>
Kākāriki	New Zealand parakeet	<i>Cyanoramphus spp</i>
Kakaruai	South Island robin	<i>Petroica australis australis</i>
Kakī	Black stilt	<i>Himantopus novaezealandiae</i>
Kāmana	Crested grebe	<i>Podiceps cristatus</i>
Kārearea	New Zealand falcon	<i>Falco novaeseelandiae</i>
Karoro	Black-backed gull	<i>Larus dominicanus</i>
Kea	Kea	<i>Nestor notabilis</i>
Kōau	Black shag	<i>Phalacrocorax carbo</i>
Pied shag		<i>Phalacrocorax varius varius</i>
Little shag		<i>Phalacrocorax melanoleucos brevisrostris</i>
Koekoeā	Long-tailed cuckoo	<i>Eudynamis taitensis</i>
Kōparapara or Korimako	Bellbird	<i>Anthornis melanura melanura</i>
Kororā	Blue penguin	<i>Eudyptula minor</i>
Kōtare	Kingfisher	<i>Halcyon sancta</i>
Kōtuku	White heron	<i>Egretta alba</i>
Kōwhiowhio	Blue duck	<i>Hymenolaimus malacorhynchos</i>
Kūaka	Bar-tailed godwit	<i>Limosa lapponica</i>
Kūkupa/Kererū	New Zealand wood pigeon	<i>Hemiphaga novaeseelandiae</i>
Kuruwhengu/Kuruwhengi	New Zealand shoveller	<i>Anas rhynchotis</i>
Mātā	Fernbird	<i>Bowdleria punctata punctata</i> and <i>Bowdleria punctata stewartiana</i> and <i>Bowdleria punctata wilsoni</i> and <i>Bowdleria punctata candata</i>
Matuku moana	Reef heron	<i>Egretta sacra</i>
Miromiro	South Island tomtit	<i>Petroica macrocephala macrocephala</i>
Miromiro	Snares Island tomtit	<i>Petroica macrocephala dannefaerdi</i>
Mohua	Yellowhead	<i>Mohoua ochrocephala</i>
Pākura/Pūkeko	Swamp hen/Pūkeko	<i>Porphyrio porphyrio</i>
Pārera	Grey duck	<i>Anas superciliosa</i>
Pateke	Brown teal	<i>Anas aucklandica</i>
Pīhoihoi	New Zealand pipit	<i>Anthus novaeseelandiae</i>
Pīpīwharauoa	Shining cuckoo	<i>Chrysococcyx lucidus</i>
Pīwakawaka	South Island fantail	<i>Rhipidura fuliginosa fuliginosa</i>
Poaka	Pied stilt	<i>Himantopus himantopus</i>
Pokotiwha	Snares crested penguin	<i>Eudyptes robustus</i>
Name in Māori	Name in English	Scientific name
Pūtakitaki	Paradise shelduck	<i>Tadorna variegata</i>
Riroriro	Grey warbler	<i>Gerygone igata</i>

Roroa	Great spotted kiwi	<i>Apteryx haastii</i>
Rowi	Ōkārito brown kiwi	<i>Apteryx mantelli</i>
Ruru koukou	Morepork	<i>Ninox novaeseelandiae</i>
Takahē	Takahē	<i>Porphyrio mantelli</i>
Tara	Terns	<i>Sterna spp</i>
Tawaki	Fiordland crested penguin	<i>Eudyptes pachyrhynchus</i>
Tete	Grey teal	<i>Anas gracilis</i>
Tīeke	South Island saddleback	<i>Philesturnus carunculatus carunculatus</i>
Tītī	Sooty shearwater/Muttonbird/Hutton's shearwater Common diving petrel South Georgian diving petrel Westland petrel Fairy prion Broad-billed prion White-faced storm petrel Cook's petrel Mottled petrel	<i>Puffinus griseus and Puffinus huttoni and Pelecanoides urinatrix and Pelecanoides georgicus and Procellaria westlandica and Pachyptila turtur and Pachyptila vittata and Pelagodroma marina and Pterodroma cookii and Pterodroma inexpectata</i>
Tītītipounamu	South Island rifleman	<i>Acanthisitta chloris chloris</i>
Tokoeka	South Island brown kiwi	<i>Apteryx australis</i>
Toroa	Albatrosses and Mollymawks	<i>Diomedea spp</i>
Toutouwai	Stewart Island robin	<i>Petroica australis rakiura</i>
Tūī	Tūī	<i>Prothemadera novaeseelandiae</i>
Tutukiwi	Snares Island snipe	<i>Coenocorypha aucklandica huegeli</i>
Weka	Western weka	<i>Gallirallus australis australis</i>
Weka	Stewart Island weka	<i>Gallirallus australis scotti</i>
Weka	Buff weka	<i>Gallirallus australis hectori</i>

Plants

Name in Māori	Name in English	Scientific name
Akatorotoro	White rata	<i>Metrosideros perforata</i>
Aruhe	Fernroot (bracken)	<i>Pteridium aquilinum var esculentum</i>
Harakeke	Flax	<i>Phormium tenax</i>
Horoeka	Lancewood	<i>Pseudopanax crassifolius</i>
Houhi	Mountain ribbonwood	<i>Hoheria lyalli and H. glabata</i>
Kahikatea	Kahikatea/White pine	<i>Dacrycarpus dacrydioides</i>
Kāmahi	Kāmahi	<i>Weinmannia racemosa</i>
Kānuka	Kānuka	<i>Kunzia ericoides</i>
Kāpuka	Broadleaf	<i>Griselinia littoralis</i>
Karaeopirita	Supplejack	<i>Ripogonum scandens</i>
Karaka	New Zealand laurel/Karaka	<i>Corynocarpus laevigata</i>
Karamū	Coprosma	<i>Coprosma robusta, coprosma lucida, coprosma foetidissima</i>
Kātote	Tree fern	<i>Cyathea smithii</i>
Kiekie	Kiekie	<i>Freycinetia baueriana subsp banksii</i>

Kōhia	NZ Passionfruit	<i>Passiflora tetrandra</i>
Korokio	Korokio Wire-netting bush	<i>Corokia cotoneaster</i>
Koromiko/Kōkōmuka	Koromiko	<i>Hebe salicifolia</i>
Kōtukutuku	Tree fuchsia	<i>Fuchsia excorticata</i>
Kōwhai Kōhai	Kōwhai	<i>Sophora microphylla</i>
Mamaku	Tree fern	<i>Cyathea medullaris</i>
Mānia	Sedge	<i>Carex flagellifera</i>
Mānuka Kahikātoa	Tea-tree	<i>Leptospermum scoparium</i>
Māpou	Red matipo	<i>Myrsine australis</i>
Mataī	Mataī/Black pine	<i>Prumnopitys taxifolia</i>
Miro	Miro/Brown pine	<i>Podocarpus ferrugineus</i>
Ngaio	Ngaio	<i>Myoporum laetum</i>
Nīkau	New Zealand palm	<i>Rhopalostylis sapida</i>
Pānako	(Species of fern)	<i>Asplenium obtusatum</i>
Pānako	(Species of fern)	<i>Botrychium australe</i> and <i>B. biforme</i>
Pātōtara	Dwarf mingimingi	<i>Leucopogon fraseri</i>
Pīngao	Pīngao	<i>Desmoschoenus spiralis</i>
Pōkākā	Pōkākā	<i>Elaeocarpus hookerianus</i>
Ponga/Poka	Tree fern	<i>Cyathea dealbata</i>
Rātā	Southern rātā	<i>Metrosideros umbellata</i>
Raupō	Bulrush	<i>Typha angustifolia</i>
Rautāwhiri/Kōhūhū	Black matipo/Māpou	<i>Pittosporum tenuifolium</i>
Rimu	Rimu/Red pine	<i>Dacrydium cypressinum</i>
Rimurapa	Bull kelp	<i>Durvillaea antarctica</i>
Taramea	Speargrass, spaniard	<i>Aciphylla</i> spp
Tarata	Lemonwood	<i>Pittosporum eugenioides</i>
Tawai	Beech	<i>Nothofagus</i> spp
Tētēaweka	Muttonbird scrub	<i>Olearia angustifolia</i>
Tī rākau/Tī Kōuka	Cabbage tree	<i>Cordyline australis</i>
Tīkumu	Mountain daisy	<i>Celmisia spectabilis</i> and <i>C. semicordata</i>
Tītoki	New Zealand ash	<i>Alectryon excelsus</i>
Toatoa	Mountain Toatoa, Celery pine	<i>Phyllocladus alpinus</i>
Toetoe	Toetoe	<i>Cortaderia richardii</i>
Tōtara	Tōtara	<i>Podocarpus totara</i>
Tutu	Tutu	<i>Coriaria</i> spp
Wharariki	Mountain flax	<i>Phormium cookianum</i>
Whīnau	Hīnau	<i>Elaeocarpus dentatus</i>
Wī	Silver tussock	<i>Poa cita</i>
Wīwī	Rushes	<i>Juncus</i> all indigenous <i>Juncus</i> spp and <i>J. maritimus</i>

Freshwater Fish and Shellfish

Name in Māori	Name in English	Scientific name
Inanga	(whitebait species)	<i>Galaxias maculatus</i>
Banded kokopu		<i>Galaxias fasciatus</i>
Koaro	(whitebait species)	<i>Galaxias brevipinnis</i>
Shortjaw kokopu		<i>Galaxias postvectis</i>
Taiwharu	Giant kokopu	<i>Galaxias argenteus</i>
Upland bully		<i>Gobiomorphus breviceps</i>
Bluegill bully		<i>Gobiomorphus hubbsi</i>
Kokopu/hawai	Giant bully	<i>Gobiomorphus gobioides</i>
Common bully		<i>Gobiomorphus cotidianus</i>
Redfin bully		<i>Gobiomorphus huttoni</i>
Tuna	Longfin eel	<i>Anguilla dieffenbachii</i>
Tuna	Shortfin eel	<i>Anguilla australis</i>
Kanakana	lamprey	<i>Geotria australis</i>
Alpine galaxias		<i>Galaxias paucispondylus</i>
Gollum galaxias		<i>Galaxias gollumoides</i>
Southern flathead galaxias		<i>Galaxias depressiceps</i>
Piripiripohatu	Torrentfish	<i>Cheimarrichthys fosteri</i>
Paraki/ngaiore	Common smelt	<i>Retropinna retropinna</i>
Black flounder		<i>Rhombosolea retiaria</i>
Koura/kewai	Freshwater crayfish	<i>Paranephrops planifrons</i> , <i>Paranephrops zealandicus</i>
Kakahi	Freshwater mussels	<i>Echyridella menziesi</i>
Pipi/Kākahi	Pipi	<i>Paphies australe</i>
Tuaki	Cockle	<i>Austrovenus stutchburgi</i>
Tuaki/Hākiari, Kuhakuha/Pūrimu	Surfclam	<i>Dosinia anus</i> , <i>Paphies donacina</i> , <i>Mactra discor</i> , <i>Mactra murchsoni</i> , <i>Spisula aequilateralis</i> , <i>Basina yatei</i> , or <i>Dosinia subrosa</i>
Tuatua	Tuatua	<i>Paphies subtriangulata</i> , <i>Paphies donacina</i>
Waikaka/Pūpū	Mudsnail	<i>Amphibola crenata</i> , <i>Turbo smaragdus</i> , <i>Zedilom spp</i>

Appendix D

Ngāi Tahu Freshwater Policy

TE RŪNANGA O NGĀI TAHU

FRESHWATER POLICY



*Te tōmairaki, me te hukapapa, me te hukarere, me te ua,
he aitaka nā Raki i a Papa, koia te taru ka tupu ai i te raumati*

*Morning mists, ice, snow, and the rain,
descendants of Raki that sustain Papatūānuku
and give new life for the summer*

TABLE OF CONTENTS

Foreword.....	3
Background.....	5
Kaupapa.....	8
Issues To Be Addressed.....	9
Identification Of Ngāi Tahu Values And Uses Associated With Freshwater Resources.....	13
Instream Water Flows.....	17
Freshwater Fisheries Habitats.....	22
Participation Of Ngāi Tahu In Freshwater Management.....	24
Summary Of All Objectives And Policies.....	27
Ngāi Tahu’s Freshwater Policy Statement.....	29
Performance Indicators.....	47
Appendix 1 Consultation With Te Rūnanga O Ngāi Tahu And Papatipu Rūnanga.....	53
Appendix 2 Glossary.....	57
Acknowledgments.....	58
Written References Used.....	58

FOREWORD

This is the first Freshwater Policy Statement that has been produced by Te Rūnanga o Ngāi Tahu. This Policy Statement is addressed to Ngāi Tahu Whānui, statutory resource managers, resource users, communities and other interested agencies.

It describes in general terms:

- Ngāi Tahu's association with freshwater resources;
- the ways in which Ngāi Tahu, as tangata tiaki, want to participate in freshwater management; and, most importantly
- the environmental outcomes sought.

The focus of this Policy Statement is the management of freshwater resources within the rohe of Ngāi Tahu. It outlines the environmental outcomes sought by Ngāi Tahu and the means by which Ngāi Tahu is seeking to work with resource management agencies to achieve these outcomes.

This Policy Statement does not discuss issues relating to the ownership of water. It does not set out Te Rūnanga o Ngāi Tahu's position on this subject. The fact that ownership is not discussed in this statement should not be construed as meaning Te Rūnanga o Ngāi Tahu's accepts the current position. Te Rūnanga o Ngāi Tahu wishes to state explicitly that it believes the issue of ownership of freshwater remains unresolved.

Te Rūnanga o Ngāi Tahu recognises the need for important issues, such as the ownership of common property resources, including water, defacto property rights and development rights in respect of such resources, to be discussed and debated in the appropriate forum. It believes that this Policy Statement, which deals with resource management issues, is not the appropriate forum for such a discussion.

This Policy Statement proposes a direction that hopefully will shape the work of Te Rūnanga o Ngāi Tahu, Papatipu Rūnanga and resource management agencies over the next five years.

This is an ambitious but realistic statement that we believe will do much to enhance the waterbodies within the rohe and the relationship of Ngāi Tahu with resource management agencies.

Over the coming months we will be liaising within Ngāi Tahu, and with resource users, resource managers, scientists, and communities on how best to work cooperatively towards the implementation of the strategies set out in this Policy Statement.

.....
Mark Solomon
Kaiwhakahaere
Te Rūnanga o Ngāi Tahu

.....
Sid Ashton
CEO
Te Rūnanga o Ngāi Tahu

PART ONE

2.0 BACKGROUND

2.1 Introduction

Water is central to all Māori life. It is a taonga left by ancestors to provide and sustain life. It is for the present generation, as tangata tiaki¹, to ensure that the taonga is available for future generations in as good as, if not better quality.

Ngāi Tahu considers that its relationship with the waters of its rohe has been eroded over the last 150 years. Evidence produced by Ngāi Tahu to the Waitangi Tribunal documented numerous examples of the waterways within the Ngāi Tahu rohe:

- that are now severely polluted by discharges; and
- where reworking of the hydrological regime of waterways has resulted in unnatural patterns of erosion, sedimentation, drying up of flows and damage to rich mahinga kai habitats on the riparian margins.

The degraded state of many of the waterways is confirmed by the State of the Environment Report (1997). These adverse effects impact on the health and wellbeing of the waterways and the ability of Ngāi Tahu to access the life sustaining resources of the waterways.

The Treaty of Waitangi guaranteed Māori full rights of ownership of their lands, estates, forests, fisheries and other property for so long as they wished to retain them. Iwi have assumed an increasing role in fisheries management, due, in part, to the recognition of the legitimacy of customary fishing rights. In resource management forums, however, to protect customary freshwater fisheries, Ngāi Tahu has advocated for implementation of appropriate freshwater management regimes. Its role was limited to one of advocacy. Reliance on advocacy fails to recognise the nature and extent of the relationships Ngāi Tahu has with the freshwater within its rohe and its aspirations to be active participants in all aspects of water management. Ngāi Tahu sought to redress these deficiencies during the Settlement negotiations with the Crown. The Ngāi Tahu Claims Settlement Act 1998 (the NTCSA 1998) contains a number of mechanisms that should improve the effectiveness of Ngāi Tahu's participation in the management of freshwater ecosystems. These mechanisms are discussed in section 4.5 of this Policy Statement.

An issue that is being tackled by Ngāi Tahu, and other iwi and indigenous peoples around the world is the reversal of the history of degradation to realise the potential of their resource base guaranteed by treaties. A key aspect of this Freshwater Policy Statement is the development of restoration and enhancement programmes for the freshwater bodies within the rohe of Ngāi Tahu.

Prior to the enactment of the Conservation Act 1987 and Resource Management Act 1991 there were few statutory provisions requiring resource managers to address iwi interests. Today,

¹ Tangata tiaki, meaning guardian or caretaker.

conservation managers, pursuant to section 4 of the Conservation Act 1987, are required to “give effect to the principles of the Treaty of Waitangi”.

Resource managers have to meet the obligations set out in Part II of the Resource Management Act 1991 (RMA). Part 2 requires that anyone exercising functions and powers under the RMA shall recognise and provide for matters of national importance including “the relationship of Māori and their cultures and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga” (s6). They are also required to have particular regard to Kaitiakitanga (s7).

In addition the RMA 1991 requires that, “in relation to managing the use, development and protection of natural and physical resources”, anyone exercising functions and powers under the RMA “take in account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi)” (s8).

2.2 Purpose of Te Rūnanga o Ngāi Tahu’s Freshwater Policy Statement

The challenge for Ngāi Tahu and resource managers is to agree how Ngāi Tahu’s interests are to be addressed using the existing legislative provisions. The purpose of this Freshwater Policy Statement is to provide a foundation for resource management agencies and Papatipu Rūnanga planning for freshwater. It is a Policy Statement that sets out, in broad terms, Te Rūnanga o Ngāi Tahu policies with respect to freshwater. It is a starting point for a continuing process of consultation and discussion that will further define:

- the specific priorities and needs of Papatipu Rūnanga across the rohe of Ngāi Tahu; and
- the ways in which these priorities and needs can best be met.

Te Rūnanga o Ngāi Tahu wants to acknowledge the range of initiatives undertaken by resource management agencies across the rohe that are producing positive environmental outcomes. This statement in setting broad parameters may list a number of strategies that are already being implemented by some regional councils. Hopefully there are other strategies that suggest how the relationship with Ngāi Tahu can be further enhanced over the coming years.

2.3 The relationship of this Tribal Policy Statement to other Regional Iwi Management Plans

This document is Te Rūnanga o Ngāi Tahu’s Freshwater Policy Statement. It covers the rohe of Ngāi Tahu which is described in Te Rūnanga o Ngāi Tahu Act 1996.

This Policy Statement has the status of an iwi management plan because Te Rūnanga o Ngāi Tahu has formally adopted it as such. The strategies that are set out in this Policy Statement are included as a guide for resource management agencies and Papatipu Rūnanga.

Papatipu Rūnanga have prepared a range of iwi management plans including:

- Kai Tahu Ki Otago’s Natural Resource Management Plan;
- Te Whakatau Kaupapa – a Resource Management Strategy for Canterbury;
- Te Whakatau Kaupapa – a Resource Management Strategy for Murihiku; and
- Te Taumutu Rūnanga – Water Policy.

These iwi management plans have been initiated in the regions and the details of such plans are in many instances location specific. A number of Papatipu Rūnanga are currently in the process of preparing detailed iwi management plans for the resources within their area e.g. Wairewa Rūnanga and Kaikōura Rūnanga.

This Policy Statement complements and must be read alongside existing iwi management plans. However, for information about a specific waterbody or where a proposed activity or policy will impact on a specific waterbody, resource management agencies must consult Papatipu Rūnanga. In determining how to implement the strategies in this statement it is recommended that resource management agencies consult with Papatipu Rūnanga. The First Schedule of Te Rūnanga o Ngāi Tahu Act 1996 lists the 18 Papatipu Rūnanga of Ngāi Tahu Whānui and their respective takiwā. Each of the 18 Papatipu Rūnanga has representatives who are responsible for participating in natural resource management activities. The location of the Papatipu Rūnanga and their contact details are set out in Appendix 1 of this Policy Statement.

Resource management agencies need to be aware that, in addition to consulting the Papatipu Rūnanga, section 15 of Te Rūnanga o Ngāi Tahu Act 1996 requires them to consult with Te Rūnanga o Ngāi Tahu, as the iwi authority. Resource management agencies are also to comply with the provisions of Ngāi Tahu Settlement (Resource Management Consent Notification) Regulations 1999.

2.4 Structure of Te Rūnanga o Ngāi Tahu's Freshwater Policy Statement

This Policy Statement is divided into three parts:

Part One provides background information of the purpose of the statement. This includes:

- an outline of the overall structure of the statement;
- an outline of the purpose of the statement and its relationship to other planning documents; and
- an outline of Ngāi Tahu's kaupapa with respect to freshwater – i.e. the principles upon which freshwater should be managed.

Part Two sets the direction for Ngāi Tahu's involvement in freshwater management. It includes:

- a discussion of the priority issues that Ngāi Tahu wants to see addressed by resource management agencies;
- goals and objectives that Papatipu Rūnanga and resource management agencies should collectively be striving for; and
- suggested strategies for achieving those goals and objectives.

Part Three describes:

- the performance indicators that will be used to monitor the effectiveness of the strategies in this statement; and
- the procedures that will be used by Ngāi Tahu to monitor and review this statement.

2.5 Definition of Waterbody

In this Policy Statement there is a consistent reference to a “waterbody” or “waterbodies”. These terms describe freshwater in a river, lake, stream pond, wetland or aquifer, or any part thereof. There are a number of Māori terms used throughout this Policy Statement. The meaning of these terms is set out in the glossary, which is included as Appendix 2.

3.0 KAUPAPA

Ngāi Tahu considers that the following principles should govern the formulation of water policies and plans within the rohe of Ngāi Tahu:

- Water plays a unique role in the traditional economy and culture of Ngāi Tahu. Without water no living thing, plant, fish or animal can survive.
- Water is a taonga. Water has an inherent value that should be recognised in the event of potentially competing uses. Taonga value refers to values associated with the water itself, the resources living in the water and the resources in the wider environs that are sustained by the water. Taking, using and disposing of water can have drastic effects on the environment and the values Ngāi Tahu accord to a waterbody.
- Water is a holistic resource. The complexity and interdependency of different parts of the hydrological system should be considered when developing policy and managing the water resource.
- Water is a commodity that is subject to competition. An understanding of the significance and value of water to Ngāi Tahu and other stakeholders is necessary to change the existing behaviour from one that prioritises consumptive uses and permits inefficient use towards one that recognises and provides for cultural and ecological values as priorities.
- Water has many stakeholders. The interdependency of different parts of the hydrological system creates many stakeholders, including other organisms and humans (both current and future generations). The RMA 1991 confirms that future generations are also stakeholders. From Ngāi Tahu’s perspective, the present generation has an obligation to pass on healthy water resources to future generations.
- Water should be managed at the local level because most threats to waterbodies are local. Responsibility for management should therefore be delegated to those organisations that have a personal stake in its overall health and condition.

4.0 ISSUES TO BE ADDRESSED

4.1 INTEGRATED MANAGEMENT

Issue

Environmental management in New Zealand is dispersed across numerous organisations, some of which are national while others are regional or local. The RMA 1991 has improved matters immensely by simplifying environmental management and replacing a plethora of Acts. Despite this reform, there are a number of organisations that still operate under a wide range of legislation.

Analysis

One of the challenges for local authorities is to achieve integrated management of natural and physical resources, as required in sections 30(1)(a) and 31(1)(a) of the Resource Management Act 1991. Integrated management is a necessary condition for achieving sustainable management.

Integration has numerous facets, all of which are important including:

- integration across agencies and legislation;
- integration across natural and physical resources (i.e. water, soil, the coast, etc.);
- integration across outcomes for a given waterway; and
- integration of local with regional and national objectives.

4.1.1 Integration across agencies and legislation

Using the management of freshwater fisheries as an example, the need for integration and coordination between resource management agencies can be highlighted. The need for integration arises because several organisations are responsible for managing different aspects of freshwater resources, yet have different statutory objectives and duties, different sets of stakeholders, and different time frames.

- The Department of Conservation is responsible for management of the native fishery, including whitebait management.
- The Ministry of Fisheries manages eels and other commercial species, unless it has devolved its role to an iwi under instruments such as taiāpure and mātaītai. New Zealand waters, as defined in the Fisheries Act 1996, includes all freshwaters.
- Fish and game councils manage the trout and salmon fisheries.
- Regional councils manage water quality, instream flows and minimise the adverse effects to river and lakebeds.
- District and city councils hold a number of esplanade reserves and may be able to influence land use patterns.
- DOC holds many of the riparian areas in the form of marginal strips.

- Iwi, pursuant to South Island Fisheries (Customary Fishing Regulations) 1998 have some responsibilities in relation to eel management and managing customary harvest of eels.
- Ministry of Health, Health Funding Authority and Health officers are responsible for regulating, funding and protecting public health respectively, from health risks that include pollutants, toxins and pathogens (giardia and cryptosporidium). In addition to monitoring and managing public health risks Public Health Officers also promote healthy interventions.
- The Office of Crown Lands (and the Department of Conservation) has land management roles in the South Island high country, which can influence water quality and flows.

Some of these organisations respond to national values and objectives, whereas others are locally based. Many organisations will resist accepting responsibility for a needed action unless they have a clear statutory obligation to act. Instead, they suggest another agency that ought to do the job, usually one perceived to have more resources. Even when they do accept responsibility, limited resources and the pressures of time often result in insufficient consultation with other organisations and stakeholders. Table 1 below shows just some of the legislation relevant to the management of freshwater resources.

ORGANISATION	SOURCE OF STATUTORY POWERS AND DUTIES
Regional councils	Resource Management Act 1991 Local Government Act 1974 Rating Powers Act 1988 Biosecurity Act 1993 Soil Conservation and Rivers Control Act 1941 (and a number of special statutes) ² Reserves Act 1977 Ngāi Tahu Claims Settlement Act 1998 Te Rūnanga o Ngāi Tahu Act 1996
District and city councils	Resource Management Act 1991 Local Government Act 1974 Rating Powers Act 1988 Reserves Act 1977 Ngāi Tahu Claims Settlement Act 1998 Te Rūnanga o Ngāi Tahu Act 1996
Department of Conservation	Conservation Act 1987 Marine Reserves Act 1971 Resource Management Act 1991 Ngāi Tahu Claims Settlement Act 1998 Te Rūnanga o Ngāi Tahu Act 1996
Ministry of Fisheries	Fisheries Act 1996 Ngāi Tahu Claims Settlement Act 1998 South Island Fisheries (Customary Fishing Regulations) 1998 Te Rūnanga o Ngāi Tahu Act 1996

² See the RMA 1991 Ninth Schedule.

ORGANISATION	SOURCE OF STATUTORY POWERS AND DUTIES
Ministry of Agriculture	Biosecurity Act 1993 Te Rūnanga o Ngāi Tahu Act 1996
Fish & Game Councils	Conservation Act 1987 Ngāi Tahu Claims Settlement Act 1998 Resource Management Act 1991 Te Rūnanga o Ngāi Tahu Act 1996
Environmental Risk Management Authority	Hazardous Substances and New Organisms Act 1996 Te Rūnanga o Ngāi Tahu Act 1996
Iwi-based authorities	Fisheries Act 1996 (taiapure provisions) South Island Fisheries (Customary Fishing Regulations) 1998 Te Rūnanga o Ngāi Tahu Act 1996
Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga	Te Rūnanga o Ngāi Tahu Act 1996 Ngāi Tahu Claims Settlement Act 1998 South Island Fisheries (Customary Fishing Regulations) 1998 Ngāi Tahu (Tūtaepatu Lagoon Vesting) Act 1998 Ngāi Tahu (Pounamu Vesting) Act 1997 Treaty of Waitangi Fisheries Settlement Act 1992

Table 1: Freshwater Management Responsibilities

4.1.2 Integration across media (i.e. water, land, the coast, etc.)

Under the Water and Soil Conservation Act of 1967, catchment authorities prepared catchment-based plans that by their very nature integrated objectives and policies across environmental media: freshwater, the coastal marine area, land, air, flora and fauna. Each catchment plan had the potential to pull together all the inter-related issues in a given catchment.

It is not entirely clear why some regional councils have opted instead to prepare single medium plans (i.e. a regional water plan, a regional land plan, etc.) instead of catchment plans. Such compartmentalization of the environment could give rise to problems and fail to recognise Ngāi Tahu’s philosophy of the planning from the “Mountains to the Sea”.

Te Rūnanga o Ngāi Tahu supports the preparation of planning documents that take a more holistic approach consistent with Ngāi Tahu’s “Mountain to the Sea” philosophy.

4.1.3 Catchment management planning as the preferred approach

Ngāi Tahu considers that catchment specific strategies and plans under the umbrella of the regional Policy Statement provide a better basis for achieving integrated sustainable management of natural and physical resources than a series of single medium plans.

Figure 1 shows current and preferred frameworks for regional resource planning under the Regional Statement (RPS). Councils should consult with Te Rūnanga o Ngāi Tahu, Papatipu Rūnanga and key stakeholders about their approach to planning, and about regional plans they intend to prepare in the foreseeable future.

CURRENT PRACTICE		PREFERRED PRACTICE	
RPS		RPS	
Coast ³	Water Land, etc	Catchment 1	Catchment 2
		Water Coast, etc	Water Coast, etc

Figure 1 Frameworks for regional resource planning

4.1.4 Integration of regional and local objectives

Another aspect of integration that is sometimes overlooked is the relationship between regional and local objectives. A regional council may be able to achieve some of its basic responsibilities by protecting adequate examples of each type of ecosystem within the region. However, it should also provide for the needs of local communities within the region where these may not be fully met by the region-wide policies.

The concern is that some of the regional Policy Statements, which set the direction for all territorial local authorities, are too general. More specific policies are needed.

³ Te Rūnanga o Ngāi Tahu notes that a regional coastal plan is mandatory pursuant to section 64 of the RMA 1991.

4.2 IDENTIFICATION OF NGĀI TAHU VALUES AND USES ASSOCIATED WITH FRESHWATER RESOURCES

Issue

Some resource management agencies have failed in their obligation to recognise and provide for Ngāi Tahu's relationship with the waterbodies within its rohe. It is only since the 1980s that resource management agencies' understanding of cultural values has increased.

Analysis

4.2.1 Mauri

Papatūānuku (Mother Earth) supports life including all people, flora and fauna. Waterways represent the blood vessels that supply nourishment to her and, through her, to all living things.

The primary management principle for Ngāi Tahu is the maintenance and enhancement of the mauri or life-giving essence of a resource.

With respect to waterways mauri can be tangibly represented in terms of elements of the physical health of a river ecosystem. While there are also many intangible qualities associated with the spiritual presence of the river, elements of physical health which Ngāi Tahu use to reflect the status of mauri and to identify the enhancements needed include:

- aesthetic qualities e.g. clarity, natural character and indigenous flora and fauna;
- life-supporting capacity and ecosystem robustness;
- depth and velocity of flow;
- continuity of flow from the mountain source of a river to the sea;
- fitness for cultural usage; and
- productive capacity.

The mauri should not be desecrated. Resource management agencies need to be aware that natural disasters cannot harm the mauri only those resulting from the actions of man. The mauri of a waterway is unable to protect itself against unnatural aspects of the environment. If the mauri of an entity is desecrated or defiled, the resource itself, resource users and others depending on that entity are at risk.

Sadly, the mauri of many waterbodies have been seriously eroded by water use and development including:

- The damming of the rivers;
- Abstracting water from rivers, streams and lakes;
- The diverting of the waters;
- Mixing the waters of distinct ecosystems; and

- River protection works.

Te Rūnanga o Ngāi Tahu is concerned that human activities have altered the frequency and intensity of natural change. Tangata tiaki over the years have come to realise that every time the processes and functioning of a river are altered the river system is weakened. If enough adverse changes occur the mauri of the river will die.

Resource managers must recognise that each waterbody has its own mauri, guarded by separate spiritual guardians, its own mana and its own set of associated values and uses.

Activities have the potential to degrade or extinguish the mauri of the waterbody and as a result may offend the mana of Papatipu Rūnanga who hold traditional rights and responsibilities with respect to that waterbody. The mauri of the river is degraded if it no longer has the capacity to support traditional uses and values. Across the rohe, one of the principal indicators by which Ngāi Tahu assesses the mauri of a waterbody is its productivity of the food and other materials sourced from it. Each Rūnanga has specific examples of rivers, streams, lakes and wetlands where the mauri is degraded. Further they can identify the activities that have adversely affected the mauri and the actions that must be taken to restore the mauri.

Restorative action will need to be determined with Papatipu Rūnanga on a case by case basis but will include:

- *establishing minimum flow levels that afford protection to instream values;*
- *prohibiting the direct discharge of point source contaminants to water;*
- *prohibiting the unnatural mixing of water sourced from different waterbodies;*
- *developing comprehensive strategies, including regulatory measures, to address non point source pollution; and*
- *developing with Rūnanga a programme for habitat restoration, particularly in riparian margins.*

Restorative action is a priority, particularly for waterbodies of high original ecological or cultural value.

4.2.2 Kaitiakitanga

Preservation of the integrity of valued waterways is an important aspect of the responsibilities of those members of Ngāi Tahu Whānui that are identified as the Tangata tiaki. Values (both tangible and intangible) associated with specific waterbodies include:

- the role of particular waterways in unique tribal creation stories;
- the role of those waterways in historical accounts;
- the proximity of important wāhi tapu, settlement or other historical sites in or adjacent to specific waterways;
- the use of waterways as access routes or transport courses;
- the value of waterways as traditional sources of mahinga kai food and other cultural materials; and
- the continued capacity for future generations to access, use and protect the resource.

Councils have a role to play in facilitating the identification of the values and uses associated with specific waterbodies or parts of waterbodies.

Rāhui

A complex system of cultural and spiritual practices, customs, and rules were developed to protect the mauri by managing and controlling the interactions of people and the natural world. This system was the means by which Ngāi Tahu sought the sustainable management of the resource. The specific outcome sought was the continued use of resources to meet the needs of the present generation while protecting the overall health and availability of the resource to meet the needs of future generations.

Traditional resource management practices are slowly gaining increased recognition as evidenced by:

- sections 6(e), 7(a) and 8 of the Resource Management Act 1991;
- section 186B of the Fisheries Act 1996, as amended by section 311 of the Ngāi Tahu Claims Settlement Act 1998. This section provides statutory recognition for a properly instituted rāhui; and
- Section 305 of the Ngāi Tahu Claims Settlement Act 1998 that commits the Crown and Ngāi Tahu to the development of Customary Freshwater Fishing Regulations.

Rāhui refers to a restriction placed on an area or resource for a given purpose that prohibits a specific human activity, e.g. the gathering of food. The terms of a rāhui vary case by case depending on the reason, severity of restriction and time period for the prohibition. The most common rāhui are those associated with spiritual defilement and tapu, and those imposed for resource conservation purposes.

A spiritual rāhui is applied in circumstances where instances of death affect land, water and its products, and people must have no association with the resource until the tapu has been dispersed naturally by the cleansing powers of the elements, or otherwise removed in accordance with proper procedure. Spiritual rāhui may be put in place following drownings or similar events.

Rāhui may be applied to restore or retain the productivity and abundance of a resource. For example, a rāhui might be applied to preserve resources from the stresses of over-harvest, to allow their recovery from physical pollution, or to ensure harvest is carried out at the optimal time, e.g. avoiding the breeding season. The resources concerned will be monitored and the rāhui lifted when sufficient regeneration has occurred.

Councils and Papatipu Rūnanga need to discuss the practical means by which resource management agencies can integrate into their own resource management practices the restrictions imposed by a rāhui, and the outcomes sought by the rāhui.

Practical means of support could include:

- *assisting Ngāi Tahu to educate resource users and the wider public of the existence of rāhui, its purpose and the means by which the restriction is to be observed;*
 - *the formulation of policy provisions that recognise and support traditional management techniques, including the observance of rāhui; and*
 - *information and training for resource management staff and the general public on the importance of rāhui to cultural and environmental outcomes.*
-

4.3 INSTREAM WATER FLOWS

Issue

Many catchments within Ngāi Tahu's rohe are experiencing water quality problems, and mounting pressures on the quantity of water available for both instream and abstractive uses. Wetlands that once were rich in mahinga kai have been drained and today are used primarily for agriculture and horticulture. Cultural and ecological values of many catchments and their associated traditional uses continue to be significantly affected by these modifications.

Analysis

The two principal issues that need to be addressed by resource managers are water quantity and water quality. From Ngāi Tahu's perspective, the Treaty guarantees fishing rights and implicitly promises water of sufficient quality and quantity to sustain the fisheries.

4.3.1 Water quantity

Protecting the mauri of a waterbody requires:

- *protection of water's capacity to renew its groundwater and surface water flows and stocks;*
- *instream flows sufficient to sustain mahinga kai species and habitats in their freshwater and coastal environs;*
- *development of flow regime that incorporate a minimum flow and flow variability. Streams and rivers are supposed to experience a range of flows and seasonal "floods" of different magnitudes;*
- *Protection of the exchange of freshwater and seawater at the river mouth. Inappropriate flow regimes can lead to reduced freshwater flows in estuaries, salt intrusion and changes to the overall character and mauri of the waterbody. Of greater concern are the instances where the river mouth closes unnaturally as a result of insufficient flows in the river; and*
- *prohibiting flow augmentation schemes, where such augmentation involves the unnatural⁴ mixing of waters from different waterbodies.*

Ngāi Tahu strongly believe that in the past, the instream environment, and in particular values such as the protection of mauri, have not been considered and by default have been accorded the lowest priority in the allocation of water. Observable effects in the South Island include low flows, saltwater intrusion into areas beyond the usual tidal reaches of a river, changes in sediment deposition patterns, unnatural drying out of significant sites, reduced seasonal flushing and floods, increased fluctuations in water levels and changes in sedimentation patterns.

⁴ This recognises that natural mixing may occur, such as mixing in the groundwater zone.

Overseas the tide is turning, and the value of environmental water use is increasingly recognised and protected. Ngāi Tahu wants to see a commitment to restoration and enhancement being made by the resource management agencies it works with.

In order of priority, the values that Ngāi Tahu wants to see protected when developing water allocation regimes are:

- 1. sustaining the mauri of the waterbody;*
- 2. meeting the basic health and safety needs of humans, specifically the provision of freshwater for drinking water;*
- 3. protecting traditional cultural values and uses (in addition to its mauri);*
- 4. protecting other instream values and uses (including indigenous flora and fauna);*
- 5. meeting the health and safety needs of humans, with respect to water for sanitation purposes;*
- 6. providing water for stock;*
- 7. providing for economic activities including other abstractive uses; and*
- 8. other uses.*

Resource management agencies have to work with Papatipu Rūnanga to ensure that sufficient water, of the right quality, is available for cultural purposes. Together with Papatipu Rūnanga they will need to assess a number of options including:

- resource appraisal, e.g. making a comprehensive assessment of the flow requirements necessary to protect cultural values;*
- regulation, e.g. developing appropriate minimum flow regimes that are not based on the premise that the starting point is to determine the amount of water needed for consumptive uses; and*
- investment, e.g. promoting investment in efficient measures e.g. water harvesting techniques, more efficient equipment etc.*

When considering what is an acceptable minimum flow Papatipu Rūnanga will want to know:

- How much water is there?
- How much is needed to protect mahinga kai species and habitats?
- How much is sought by abstractors?
- How the current low flows and the proposed minimum flow relate to natural low flow conditions.

The issue of inadequate minimum flows is a concern that is shared by all Rūnanga. Waterbodies are affected by serious competition from industrial, household and agricultural users. Ngāi Tahu considers that the instream and environmental value of this water exceeds the value of water in some of its other uses and this should be recognised when determining an appropriate allocation regime.

Irrigation is one of the most consumptive uses of water. Unfortunately many of the quantities abstracted are based on historical patterns of usage. Councils should be proactive in requiring a more efficient use of water resources, e.g. water harvesting techniques, and requiring farmers, in the assessment of environmental effects that accompanies resource consents, to justify the quantities of

water taken. The amount taken by farmers should be based on efficient norms for the area cultivated, the crop mix, and the water requirements of each crop. Each take should be metered.

One of Ngāi Tahu's main concerns is that resource management agencies do not know the quantities of water abstracted from the waterbodies. Further there is often a limited understanding of the relationship between groundwater and surface water flows. This is of particular concern to Ngāi Tahu when abstractions from groundwater sources is permitted often despite concerns being expressed about the possible adverse effects on surface water. Information is necessary on the interaction between groundwater and surface water flows. In the absence of such information, a precautionary approach to allocation is necessary.

With respect to groundwater abstractions, Ngāi Tahu is concerned that abstractions from shallow aquifers near a surface waterbody may adversely affect the ability of surface flows to recover.

If farmers are encouraged to make better use of their water, it not only adds value to their existing supplies, but it also releases water for more pressing instream needs.

The velocity of water flowing in a river or stream can be regarded as the most important process causing erosion of a streambank that in turn affects water quality and habitats. Of particular concern to Rūnanga are the situations where erosion is clearly the result of an inappropriate flow regime.

Throughout the rohe there are examples of catchments where flows, because of the extent of abstractive uses, are kept close to or below the identified minimum flow for a significant period of time. Ngāi Tahu, however, recognises that it must take into consideration natural low flow conditions.

In determining flow regimes consideration must be given to seasonal flow variability. However, where a waterbody is controlled resource managers need to ensure that flood flows are proportional to the minimum flows in the river, to ensure that large floods do not destroy aquatic ecosystems. Ramping rates sensitive to the needs of the instream environment may need to be determined. From Ngāi Tahu's perspective, across the rohe, there is insufficient attention given to flow variability.

Damming of waterbodies is another activity that may cause unacceptable adverse effects. The siting and construction of a dam are undertaken for many purposes, including flood control, power generation, irrigation, livestock watering, fish farming, and community water supply. Some reservoir impoundments are also used for recreation and water sports, for fish and wildlife propagation, and for augmentation of low flows. Dams can adversely affect the hydrological regime, the quality of the surface waters, and habitat in the stream or river where they are located. A variety of impacts can result from the siting, construction, and operation of these facilities.

The siting of dams can result in the inundation of wetlands, riparian areas, and lands in upstream areas of the waterway. Dams either reduce or eliminate the downstream flooding needed by some wetlands and riparian areas. Dams can also impede or block migration routes of fish. Construction

activities from dams can cause increased turbidity and sedimentation in the waterway resulting from vegetation removal and soil disturbance.

4.3.2 Water quality

Protecting the mauri of a waterbody requires:

- *protecting the integrity and cultural uses of waterbodies by prohibiting unnatural mixing of waters from different waterbodies;*
- *prohibiting the direct discharge of contaminants to water, in particular the discharge of human effluent;*
- *requiring the discharge of water from agricultural and industrial effluent to pass through land before it enters a waterbody; and*
- *encouraging the restoration of wetlands and riparian margins because of their pollution abatement function.*

Throughout the rohe there are still examples of point source water pollution caused by the discharge of effluent from sewage plants directly to water and industries. Resource management agencies need to recognise that the direct discharge of treated effluent to water, while causing few biological adverse effects, still causes significant adverse cultural effects. Too often this distinction is not made. Of equal concern is pollution from non-point sources. While regional councils are starting to be more active in addressing point source discharges, commitment to addressing non-point source discharges is not always apparent.

If resource management agencies are to protect cultural values and uses they need to reduce water pollution levels and prevent contamination of freshwater supplies. This will require resource management agencies to consider setting standards and possibly incentives that require polluters to investigate a range of options including investment in abatement technologies and improved treatments and collection systems. Councils may also consider tighter regulation, monitoring and enforcement, and possibly the introduction of pollution charges.

Channelisation and channel modification activities are of particular concern to Ngāi Tahu. River and stream channel engineering has been undertaken for the purpose of flood control, navigation, drainage improvement, and reduction of channel migration potential. Activities such as straightening, widening, deepening, or relocating existing stream channels and clearing or snagging operations fall into this category.

Observable effects of channelisation and channel modification activities include:

- wetlands and estuarine shorelines being deprived of enriching sediments;
- changed ability of natural systems to both absorb the energy of water and filter pollutants;
- interruptions to the different life stages of aquatic organisms;
- changes to instream water temperature;
- changes to the rates and paths of sediment erosion, transport, and deposition;
- loss of instream and riparian habitat for fish and wildlife; and
- increased movement of non point source pollutants from the upper reaches of watersheds into coastal waters.

Channel modification projects undertaken in streams or rivers usually require regularly scheduled maintenance activities to preserve and maintain completed projects. These maintenance activities may also result in a continual disturbance of instream and riparian habitat. In some cases, there can be substantial displacement of instream habitat due to the magnitude of the changes in surface water quality, morphology and composition of the channel, stream hydraulics, and hydrology.

Ngāi Tahu is concerned that gravel extraction is an activity that resource management agencies are likely to class as a permitted activity under their water plans. This is of concern and not supported because inappropriate beach skimming has led to the loss of habitat for birds, increase in the width of streams which in turn leads to water temperature issues, fish passage issues, loss of instream habitat and erosion.

Resource management agencies should encourage consultation with Papatipu Rūnanga for all channelisation, channel modification projects and gravel abstractions. Where such activities are classed in a regional plan as a permitted activity, prior to the commencement of any work, Papatipu Rūnanga would like to be advised of the work proposed.

4.3.3 Cumulative effects

The identification and monitoring of cumulative effects are important elements of water use planning and environmental management. Individual (and often limited) Environmental Impact Assessments and Assessments of Environmental Effects say little about the combined effects of development on the intricate workings of a waterbody.

4.4 FRESHWATER FISHERIES HABITATS

Issue

Ngāi Tahu's fishing rights were explicitly protected by the Treaty of Waitangi. Not only was the right to engage in mahinga kai activity confirmed, also included was the right to expect that such activity will continue to be successful as measured by reference to past practice. Unfortunately adverse impacts on freshwater resources have resulted in adverse effects on the diversity and abundance of mahinga kai resources and harvesting activity.

Analysis

Ngā hua o te whenua

Ngā hua o Tāne me ngā uri o Tangaroa

Mahinga kai refers to the resources of the land, and the resources from the bush and the forests. This includes all birds and animals dependent upon these resources. The uri o Tangaroa refers to all living things within the waterways which include all water be it lake, river, lagoon or seawater.

Mahinga kai was and remains one of the cornerstones of Ngāi Tahu existence and culture. Survival was dependent upon knowledge of mahinga kai and the ability to gather resources from the land, waterbodies and the sea. Healthy waterbodies continue to be a direct source of mahinga kāi, provide ecosystem support for mahinga kai species and support other significant mahinga kai environments such as forests, riparian habitats and coastal environs. Sadly there are many examples across the rohe where inappropriate water management has impacted adversely on mahinga kāi. Observable effects include alterations to the abundance and distribution of species, disturbances to the breeding cycles and patterns, loss of access to waterbodies, and the deterioration, reduction and removal of habitat.

Ensuring the health and wellbeing of freshwater is a prerequisite for ensuring the continued health and wellbeing of mahinga kai resources and ultimately the people. Papatipu Rūnanga are likely to accord special value to a waterbody that:

- provides significant habitats for important food species and materials such as eels, watercress, flax etc;
- affords breeding and migratory environments for those species and the species they feed on e.g. wetlands and lagoons;
- has long-standing use histories for whānau, hapū and iwi; or
- deserves protection because it safeguards critical habitats, protects robust ecosystems or represents degraded mahinga kai environments that are in need of restoration.

For Ngāi Tahu Whānui today, participation in mahinga kai activities is an important expression of cultural identity. Continuation of traditional practices is an important means of passing values down to children and grandchildren, ensuring their survival through the generations.

The protection of mahinga kai resources will require resource managers to consult with Papatipu Rūnanga to establish:

- *the species that are of particular significance;*
- *the locations within a catchment that require specific protection; and*
- *the means by which mahinga kai values are to be protected and not compromised by diversion, extraction, other competing uses for the water and activities within the bed of the lake/river..*

Issue

Resource management agencies do not always appreciate the depth and value of traditional environmental knowledge held by members of Ngāi Tahu Whānui. Even where traditional environmental knowledge is valued there may be difficulty in determining how best to apply the knowledge.

Analysis

In many resource management forums scientific and technical expertise is seen to be superior to traditional knowledge and tikanga. Ngāi Tahu has therefore observed with interest the outcome of the requirement for resource users and developments to avoid, remedy or mitigate the adverse effects of their activities on the environment. Increasingly human uses that touch the land gently and respectfully are now preferred in discourses over resource use. There is recognition that humans are part of the ecosystem, as participants, harvesters and protectors. For many it is no longer legitimate to exploit resources without regard to consequences. This increasing awareness suggests a degree of support for the traditional values held by Ngāi Tahu.

In addition to recognising the value of traditional knowledge there is a need for resource management agencies to go further and facilitate ways in which Papatipu Rūnanga can be actively involved in the management of waterbodies. This involvement could take the form of:

- *observing the status of waterbodies, as part of a monitoring programme;*
- *participating in determining acceptable minimum flow regimes;*
- *being offered the opportunity to tender for work programmes and projects;*
- *participating in research projects, surveys, assessments;*
- *undertaking water quality testing;*
- *being contracted to provide particular planning services;*
- *offering opportunities for representatives from Rūnanga to have placements inside resource management agencies, e.g. working 1 day a week in a department or working on a project for a 3 month secondment; and*
- *offering opportunities for Ngāi Tahu students to gain work experience during holidays.*

The Ngāi Tahu Claims Settlement Act

The Ngāi Tahu Claims Settlement Act 1998 (the “Settlement Act”) includes a number of mechanisms that were designed to improve the effectiveness of Ngāi Tahu’s participation in natural resource management. In the context of this Policy Statement, the expectation of Ngāi Tahu Whānui is that those mechanisms will facilitate increased participation in the management of freshwater ecosystems. Mechanisms include:

Statutory Areas

The Settlement Act contains a number of schedules. Statutory areas refer to the areas, rivers, lakes and wetlands described in schedules 14 – 77, 100 - 104 and 108 of the Ngāi Tahu Claims Settlement Act 1998.

Statutory Acknowledgements

This mechanism obligates the Crown to acknowledge the traditional association of Ngāi Tahu with the statutory areas. The obligations of the Crown, local authorities, the Environment Court and the Historic Places Trust are set out in sections 206 – 222. Resource management agencies are also to comply with the provisions of Ngāi Tahu Settlement (Resource Management Consent Notification) Regulations 1999.

Deeds of Recognition

A Deed of Recognition is a mechanism that requires the Crown, when managing and administering a statutory area, to have particular regard to Te Rūnanga o Ngāi Tahu's association with the statutory area that is subject to the Deed. Further, Te Rūnanga o Ngāi Tahu must be consulted for all matters specified in the Deed.

Statutory Adviser

Te Rūnanga o Ngāi Tahu is adviser to the Minister of Conservation for the sites that are detailed in Schedule 79 and in sections 176 and 199 of the Settlement Act.

Nohoanga

Nohoanga enable Ngāi Tahu Whānui to occupy land close to waterbodies so that they have access to that waterbody for fishing and the harvest of other natural resources. It is likely that Papatipu Rūnanga will be seeking high levels of protection for waterbodies in the vicinity of nohoanga. In particular they will want to ensure that the quantity and quality of water is sufficient to support healthy mahinga kai.

Taonga Species

Schedule 97 of the Settlement Act lists a number of species of plants, shellfish, marine mammals, fish, or birds that Ngāi Tahu has a special taonga relationship with. While the Settlement Act, in sections 287 – 296, lists the obligations in respect of the management of taonga species, in particular recovery planning, Ngāi Tahu will be active in resource management forums to ensure that the habitats and wider needs of these taonga species are protected. Resource management agencies will need to agree with Ngāi Tahu the practical means by which Ngāi Tahu's relationship with these taonga species will be provided for.

Resource management agencies need to liaise with Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga to ensure that they comply with the provisions of the Ngāi Tahu Claims Settlement Act 1998.

5.0 SUMMARY OF ALL OBJECTIVES AND POLICIES

WĀHI TAPU To afford total protection to waters that are of particular spiritual significance to Ngāi Tahu.	MAURI Restore, maintain and protect the mauri of freshwater resources.	MAHINGA KAI To maintain vital, healthy mahinga kai populations and habitats capable of sustaining harvesting activity.	KAITIAKITANGA To promote collaborative management initiatives that enable the participation of Ngāi Tahu in freshwater management.
Identify sites for immediate protection because of their significance as wāhi tapu. Agree with resource management agencies objectives, policies and methods that protect the sites identified by Papatipu Rūnanga.	Identify freshwater resources where: <ul style="list-style-type: none"> mauri is unaffected by modification and human activity so that these waterbodies can be afforded total protection. mauri is adversely affected, and the activities that cause such effects. 	Protect critical mahinga kai habitats and identified representative areas.	Ensure Ngāi Tahu has access to information about the status of resources and the activities of resource users so that it is able to anticipate the effects of activities on customary values and uses.
	Accord priority to ensuring the availability of sufficient quantities of water of appropriate water quality to maintain and protect the mauri of a waterbody, in particular priority is to be accorded when developing water allocation regimes.	Restore and enhance the mahinga kai values of rivers, streams, wetlands and riparian margins.	Assist with the development of Ngāi Tahu's capacity to conduct formal cultural impact assessments and require such assessments as part of an assessment of environmental effects.
	Adopt catchment management planning as the means of achieving integrated management .	Ensure that activities in the upper catchments have no adverse effect on mahinga kai resources in the lower catchments.	Facilitate effective Ngāi Tahu participation in: <ul style="list-style-type: none"> Policy formulation; Decision making; Operational management activities; and Monitoring activities.
	Protect the opportunities for Ngāi Tahu's uses of freshwater resources in the future.	Restore access to freshwater resources for cultural activities, including the harvest of mahinga kai.	Improve the integration of western science and traditional local knowledge in order to develop a better understanding of all water use planning related matters. Increase the ability of Papatipu Rūnanga to understand and participate in all aspects of research and to have influence in setting research priorities.

PART 2

6.0 NGĀI TAHU’S FRESHWATER POLICY STATEMENT

This part of the Policy Statement describes a framework that would deliver for Ngāi Tahu an active role in the management of freshwater bodies within its rohe. It identifies:

- four priority areas that need to be addressed by natural resource managers;
- goals and objectives for each of the priority areas; and
- suggested strategies for achieving these goals and objectives.

6.1 PRIORITY	WĀHI TAPU
OBJECTIVE	To afford total protection to waters that are of particular spiritual significance to Ngāi Tahu.
	<p>POLICIES</p> <ol style="list-style-type: none"> 1. Identify sites for immediate protection because of their significance as wāhi tapu. 2. Agree with resource management agencies objectives, policies and methods that protect the sites identified by Papatipu Rūnanga.

STRATEGIES

1. Papatipu Rūnanga will advise councils of waterbodies or parts of waterbodies that are of particular spiritual significance and therefore in need of protection⁵. Sites of particular significance are likely to include:
 - water burials sites;
 - waters that are used for healing, spiritual or baptismal rituals;
 - sources of pounamu; and
 - hot springs.

⁵ A process for the protection of sensitive information may need to be established before an exchange of information can occur. Those applying for resource consents or undertaking permitted activities are encouraged to consult with Papatipu Rūnanga. It is likely that even where the information is sensitive or held in a silent file, the Papatipu Rūnanga will be able to confirm whether or not a significant site is located within the affected area. However, the exact nature and location of the site is likely to remain confidential.

2. Councils and Papatipu Rūnanga need to agree to:
 - the activities that are to be prohibited because of their unacceptable adverse effects; and
 - an action plan for addressing unacceptable existing uses.

3. Papatipu Rūnanga and resource management agencies should discuss the means by which the council can ensure that a spiritual Rāhui is observed. Practical means of support could include:
 - discussing how traditional management techniques, such as Rāhui, can be complemented by rules in statutory planning documents;
 - assisting Ngāi Tahu to educate resource users and the wider public of the existence of rāhui, its purpose and the means by which the restriction is to be observed;
 - the formulation of policy provisions that recognise and support traditional management techniques, including the observance of rāhui; and
 - information and training for resource management staff and the general public on the importance of rāhui to cultural and environmental outcomes.

6.2 PRIORITY	MAURI
<p>OBJECTIVE</p>	<p>Restore, maintain and protect the mauri of freshwater resources</p>
	<p>POLICIES</p> <ol style="list-style-type: none"> 1. Identify freshwater resources where: <ul style="list-style-type: none"> • mauri is unaffected by modification and human activity so that these waterbodies can be afforded total protection; and • mauri is adversely affected, and the activities that cause such effects. 2. Accord priority to ensuring the availability of sufficient quantities of water of appropriate water quality to restore, maintain and protect the mauri of a waterbody, in particular priority is to be accorded when developing water allocation regimes. 3. Adopt catchment management planning as one of the means of achieving integrated management. 4. Protect the opportunities for Ngāi Tahu’s uses of freshwater resources in the future.

STRATEGIES

Baseline information

1. Councils could contract Papatipu Rūnanga to identify freshwater bodies where mauri is adversely affected, the activities that cause the effects and the priorities for restoration and enhancement.
2. Councils and Papatipu Rūnanga should develop and implement strategies that will restore and maintain the mauri.
3. Resource management agencies could then facilitate the participation of iwi and other resource users to implement the plan.

4. Resource management agencies should develop detailed policies in their statutory planning documents that show explicitly how issues of concern to Ngāi Tahu will be addressed.
-

Integrated management

5. Councils need to develop innovative approaches to improve integration. Such approaches could include:
 - establishing working groups where resource management agencies, Papatipu Rūnanga and stakeholders develop a Memorandum of Understanding (MOU) or similar that sets out shared objectives and principles, agreed actions and coordinated time frames.
 - establishing working groups for joint plans and/or projects.⁶
 - supporting working groups that are convened by Ngāi Tahu. Ngāi Tahu may convene working groups to prepare management plans that address the overlapping responsibilities and seek to identify common objectives for all agencies. Councils should actively support such initiatives.
6. Papatipu Rūnanga will identify issues within their rohe where integration between agencies is required and will advocate for all relevant agencies to initiate and support a working group to reach agreement on objectives and policies.
7. Papatipu Rūnanga may consider convening a working party themselves to prepare a plan for resources within their rohe which will require coordinated management by different agencies. Before taking this step, Rūnanga will assess whether they have or can access the necessary capabilities and resources within Ngāi Tahu Whānui and whether they have the support of at least some key agencies.
8. Regional Councils need to recognise that all surface and groundwater in a catchment is closely linked through upstream-downstream relations and water quality interactions. Papatipu Rūnanga recommend that, as soon as feasible, Regional Councils shift their focus and use catchments as the basis for all water management planning. Catchments are Ngāi Tahu's preferred basis for the development of specific strategies and regional plans, unless catchment boundaries seriously dissect communities and disrupt existing human and natural associations.
9. Papatipu Rūnanga will advise their regional council of their priorities for preparing catchment management plans. If catchments cut across rohe or other community

⁶ An example of joint action is the joint regional air plan being prepared by the Nelson City Council and Tasman District Council.

interests, Papatipu Rūnanga are likely to suggest area boundaries for the council to use in its planning.

10. Papatipu Rūnanga will define the values and uses of the catchment, issues to be addressed, preferred objectives for the resources within the catchment, including their preferred water quality classifications and flow regimes for each waterbody. Councils should work with Papatipu Rūnanga as these requirements are incorporated in statutory planning documents.
11. The Department of Conservation and Te Rūnanga o Ngāi Tahu could explore the concept of Heritage Rivers⁷ to see if this type of mechanism could be applied to New Zealand contexts to protect culture values and uses.
12. Resource management agencies could consider the preparation of joint regional Policy Statements to get broad integration.

Instream flows

13. Councils should develop a rolling programme to review the sustainability of water use in all catchments. The review should give priority to rivers where abstractive uses are considered by Papatipu Rūnanga to adversely affect sites and resources of particular significance to them. Following such a review Councils, Papatipu Rūnanga and stakeholders will need to prioritise the actions necessary to avoid, remedy or mitigate adverse effects.
14. Councils should work with Papatipu Rūnanga to identify minimum flows that will achieve the environmental outcomes they seek. Outcomes sought by Papatipu Rūnanga will include sustaining the mauri of the waterbody and keeping streambeds wetted to an acceptable depth to support desired mahinga kāi. The following methodology is suggested as a means of facilitating the participation of Papatipu Rūnanga in the setting of a flow regime.

Councils could provide opportunities for Papatipu Rūnanga to observe the proposed flow regime. This may be more meaningful consultation than relying on formulae and statistics. It also may enable Papatipu Rūnanga to gain a greater understanding of hydrological data.

- Where Council is proposing to set a minimum flow, Papatipu Rūnanga could be contracted to record their observations of the river at various flows and to

⁷ This concept has been used by the Inuit community in North America to protect the cultural values of two rivers within their tribal area, specifically the Thelon and the Kazan Rivers.

assess the effects on cultural values. Such assessments will provide Papatipu Rūnanga with baseline data from which they can discuss flow requirements, in particular minimum flows.

- Papatipu Rūnanga could assess the flow regime adopted by Councils to ensure that it does confirm the primacy of cultural values.
 - Papatipu Rūnanga will seek assurances (based on their observations of key sites) that the proposed instream flows are sufficient to maintain the habitat and function of wetlands and riparian areas adjoining streams and rivers. Flushing and scouring flows may also be necessary to clean some streambeds and to provide the proper substrate for aquatic species.
 - Councils in their section 32 analysis should demonstrate how the proposed flow regime is consistent with Te Rūnanga o Ngāi Tahu's priorities for water allocation, including:
 1. sustaining the mauri of the waterbody;
 2. meeting the basic health and safety needs of humans, specifically the provision of freshwater for drinking water only;
 3. protecting traditional cultural values and uses (in addition to its mauri);
 4. protecting other instream values and uses;
 5. meeting the basic health and safety needs of humans, specifically the provision of freshwater for sanitation;
 6. providing water for stock;
 7. providing for economic activities including other abstractive uses; and
 8. other uses.
 - Councils should advise Papatipu Rūnanga of their strategies for ensuring flow variability, in particular advising how they will address the issues and effects associated with a prolonged period of minimum flows.
15. Papatipu Rūnanga may request that Councils establish a comprehensive register of all abstractions and impoundments as well as a programme of regular monitoring and of ground and surface water quantity for waterbodies that are of particular significance to them.
16. Councils could facilitate access to hydrological data and assist Papatipu Rūnanga with its interpretation.

Damming

17. Councils should require applicants for a consent to dam a waterbody to consult with Papatipu Rūnanga.

18. Depending on the scale of the proposed dam and the significance of the adverse effects, Papatipu Rūnanga are likely to require that all resource consents for the right to dam include an assessment of:
 - the minimum flow requirements necessary to sustain the mauri of the affected downstream reaches and support of aquatic organisms and other water-dependent wildlife in the downstream area; and
 - the means by which fish passage is to be provided at the structure.
 19. Councils should investigate the setting of limits for discharges below dams. So as to further protect against damage to instream and riparian habitat. Such limits may include:
 - seasonal limits on the flow e.g. to meet the needs of particular mahinga kai species; and
 - limits on the rate of change of flow and on the reach of the river (as measured at a point downstream).
-

Irrigation

20. Papatipu Rūnanga are likely to consider the following factors when assessing applications to abstract water for irrigation from waterbodies:
 - Whether the catchment is considered to be overallocated or fully allocated. If it is overallocated each application will be assessed by Papatipu Rūnanga as a new application i.e. the priorities accorded for existing users may not be recognised by Papatipu Rūnanga and it therefore may seek a ban on the issuance of new consents.
 - Acceptable minimum flows will be sought for the waterbody from which water is to be abstracted.
 - In many instances the minimum flow sought as a condition of the consent will be higher than the existing minimum flow. Irrigators that have invested in water harvesting will be advantaged by this approach.
 - Efficient application systems are favoured. Flood irrigation techniques are less likely to be supported than spray irrigation techniques.
 - For all takes from groundwater, information on the effect of the abstraction on surface water must be provided.
 - Cumulative impact assessments may be required especially for schemes in the upper catchment that have the potential to adversely impact downstream values and uses.
 - For applications to abstract more than 50 l/s, the quantities to be taken must be justified. Papatipu Rūnanga may ask applicants, in the Assessment of Environmental Effects to identify the crop to be irrigated, the acreage to be irrigated, the proposed water use per hectare, estimated water losses, and the

level of efficiency for the scheme. This will enable Papatipu Rūnanga to put the quantity of water sought in context and will ensure that a test of reasonableness is applied to each consent.

- The applicant should record all takes, to be monitored by the councils, with the information being available to Papatipu Rūnanga if requested.
 - Consistent with a precautionary approach, either a review clause or a reduced term for the consent may be sought. Papatipu Rūnanga are unlikely to support a 35-year for the term of the consent.
21. Papatipu Rūnanga may request from Councils a set of all permits to take water from a particular catchment if the flows in that catchment have been identified as a significant issue. Councils could support and encourage initiatives by Papatipu Rūnanga to establish profiles of catchments that are of particular significance to them.
 22. Councils should investigate mechanisms (such as the setting of seasonal abstraction limits) that prevent excessive abstractions at times of low flow. Being able to take water only in the seasons where flows are likely to be higher is one means of encouraging water-harvesting techniques.
 23. Councils should recognise, and encourage abstractors to recognise, that Papatipu Rūnanga have the right to participate in water user groups should they so desire. Ngāi Tahu are legitimate “water users”, the difference is that Ngāi Tahu’s use is in stream.
 24. Councils could encourage irrigators and other abstractive users, to conduct research on, and invest in, water saving devices and farm systems.
 25. Regional councils in their anticipated environmental results section of regional plans should identify specific targets for efficiency gains in rivers where water quantity has been identified as a particular issue for Papatipu Rūnanga.
 26. Papatipu Rūnanga want to see the installation of meters of all water abstractions so that the quantity of water taken is known.

Cumulative effects

27. Papatipu Rūnanga may require a cumulative impact assessment as part of an Environmental Impact Assessment or an Assessment of Environmental Effects

28. Resource management agencies in developing their state of the environment monitoring programmes need to be confident that cumulative impact assessments are part of their programme, instead of relying on *ad hoc* project by project assessments.
-

Water quality classifications

29. Papatipu Rūnanga could identify the water quality standards they want to apply to a waterbody or part of waterbody to protect its cultural values and uses.
 30. Papatipu Rūnanga and Councils could discuss how Rūnanga participation in water quality testing could be facilitated.
-

Point source discharges

31. Councils should prohibit the direct discharge of contaminants, particularly human effluent, to waterways. Discharges to land should be encouraged.
 32. Papatipu Rūnanga will endeavour to identify the person, company or organisation responsible for water pollution with the expectation that those responsible will be required to restore the affected area.
-

Non-point source discharges

33. Resource management agencies, especially Councils, should develop and promote programmes that provide opportunities to set aside and restore wetlands and riparian areas. This may include:
 - developing incentives that encourage private restoration of fish and wildlife productivity;
 - promoting the development of Best Practice Guidelines for managing surface water runoff which is responsible for fertilizers, insecticides, toxins and contaminants entering the waterway (e.g. giardia); and
 - developing catchment specific strategies for planting riparian zones.
34. Resource management agencies should encourage increased awareness among farmers, urban dwellers, and government agencies of the role of wetlands and riparian areas in protecting water quality. In addition to preventing or mitigating

adverse effects on wetlands and riparian areas, courses in simple restoration techniques could be provided for Rūnanga members and other stakeholders.

35. Papatipu Rūnanga will identify the areas where streambank or shoreline erosion is a non-point source pollution problem and the specific sites where streambanks and shorelines should be stabilised. Papatipu Rūnanga are likely to prefer vegetative methods of stabilisation, including replanting of indigenous vegetation, wetland creation and appropriate riparian management. Where structural methods are proposed given the severity of wave and wind erosion, and the potential adverse impact on other streambanks, shorelines, and offshore areas, the Papatipu Rūnanga must be consulted.⁸
36. Councils should protect the full range of functions for wetlands and riparian areas because of their value as a control for non-point source discharges. Protection also ensures that the wetland itself does not become a significant source of non-point pollution. A degraded wetland can deliver increased amounts of sediment, nutrients, and other pollutants to the adjoining waterbody, thereby acting as a source of non-point pollution instead of a treatment.
37. Papatipu Rūnanga will advocate for Councils to monitor and report to Rūnanga and stakeholders in their annual plans the effectiveness of their practices for improving riparian management, erosion control, groundwater protection, non-point source pollution identification, animal waste control, and failing septic tank control.
38. District and regional councils need to ensure that district plans and regional plans establish clear guidelines that address the non-point source pollution issue. For Papatipu Rūnanga the absence of programmes that address non-point source pollution in proposed and operative regional and district plans is a particular concern.

⁸ Preservation and protection of shorelines and streambanks can be accomplished through many approaches, but the preference is for nonstructural practices. These methods have the advantage of enhancing mahinga kai by providing food, cover, and instream and riparian habitat for mahinga kai species. Further these methods are conducive to participation by Rūnanga members.

6.3	PRIORITY	MAHINGA KAI
	OBJECTIVE	To maintain vital, healthy mahinga kai populations and habitats capable of sustaining harvesting activity.
		<p>POLICIES</p> <ol style="list-style-type: none"> 1. Protect critical mahinga kai habitats and identified representative areas. 2. Restore and enhance the mahinga kai values of lakes, rivers, streams, wetlands, estuaries and riparian margins. 3. Ensure that activities in the upper catchments have no adverse effect on mahinga kai resources in the lower catchments. 4. Restore access to freshwater resources for cultural activities, including the harvest of mahinga kai.

STRATEGIES

Baseline information

1. Papatipu Rūnanga should identify mahinga kai values. Resource management agencies and Papatipu Rūnanga should then agree the ways in which traditional knowledge and technology can complement each other for the benefit of both parties, e.g. developing maps, inventories and databases.

Habitat management

2. Councils should develop policies and incentives that promote the restoration of the natural functioning of damaged and destroyed wetlands and riparian systems.

3. Councils should develop policies and methods that require riparian habitat maintenance and restoration in the areas around impounded reservoirs and river reaches downstream from a dam. Reservoir shorelines are important riparian areas, and they need to be managed or restored to realise their many riparian habitat and water quality benefits. The rate of drawdown of lake levels is important as is the control of the ramping rates in the river downstream of dams.
4. Councils should protect the existing wetlands and riparian areas that provide habitat for mahinga kai species. Council's overall approach should be to establish a set of practices that maintains functions of wetlands and riparian areas and prevents adverse impacts on such areas that serve a range of purposes including a pollution abatement function.
5. Resource management agencies, once the Customary Freshwater Fishing Regulations are operational, will need to discuss and agree with Papatipu Rūnanga and Tangata Tiaki how the habitat management responsibilities can be coordinated.
6. Papatipu Rūnanga and Councils could agree processes that ensure that the engineering staff within the Councils consult with Papatipu Rūnanga when they are planning instream maintenance activities.
7. Papatipu Rūnanga could identify the activities that adversely affect mahinga kai species and mahinga kai habitats. Using this baseline information Papatipu Rūnanga and resource management agencies could then develop policies and methods to restore and protect identified mahinga kai values. Papatipu Rūnanga are likely to require that the following practices be avoided:
 - location of surface water runoff ponds or sediment retention basins in healthy wetland;
 - use of contaminants within the waterbody or in or close proximity;
 - grazing of stock in a waterbody or on the riparian margins;
 - establishing and/or continuing to use causeways through a waterbody instead of bridges over it;
 - dredging and drainage of wetlands resulting in damming a waterbody; and
 - damming a waterbody resulting in flooded upstream habitats and dewatering downstream habitats.

Species management

8. Papatipu Rūnanga and resource management agencies should discuss the means by which the Council can ensure that a conservation rāhui is observed.

9. Resource management agencies, as part of their state of the environment monitoring, should commit to undertake stock assessments to determine the diversity and abundance of mahinga kai species. It will be important to coordinate information collection activities and share information to avoid the duplication of effort.
 10. Tangata Tiaki will administer customary harvest from freshwater bodies once the Customary Freshwater Fishing Regulations are operational. The catch histories that they compile will also provide information about the nature and extent of the freshwater fishery.
-

Access to mahinga kai species

11. Resource management agencies should ensure that modifications to a waterbody do not prevent physical access to the waterbody for the harvest of other mahinga kai species, for example reduced flows such as diversions or abstractions may change the character of a waterbody and make it impassable or inaccessible.
12. Where iwi access a waterbody for the purpose of fishing or the harvest of other mahinga kai species, resource management agencies should ensure that discharges do not adversely affect or prevent such activity occurring.

6.4 PRIORITY	KAITIAKITANGA
<p>OBJECTIVE</p>	<p>To promote collaborative management initiatives that enable the active participation of Ngāi Tahu in freshwater management.</p>
	<p>POLICIES</p> <p>To encourage agencies to:</p> <ol style="list-style-type: none"> 1. Ensure Ngāi Tahu has access to information about the status of resources and the activities of resource users so that it is able to anticipate the effects of activities on customary values and uses. 2. Assist with the development of Ngāi Tahu’s capacity to conduct formal cultural impact assessments and require such assessments as part of an assessment of environmental effects. 3. Facilitate effective Ngāi Tahu participation in: <ul style="list-style-type: none"> • Policy formulation; • Decision making; • Operational management activities; and • Monitoring activities. 4. Improve the integration of western science and traditional local knowledge in order to develop a better understanding of all water use planning related matters. 5. Increase the ability of Papatipu Rūnanga to understand and participate in all aspects of research and to influence the setting of research priorities.

STRATEGIES

Consistency with Legislation

1. Resource management agencies are required to meet their obligations under the Te Rūnanga o Ngāi Tahu Act 1996 and Settlement Act. It is recommended that they

agree with Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga processes that will enable them to do this.

Information collection

2. Te Rūnanga o Ngāi Tahu, Papatipu Rūnanga, and resource management agencies should identify and agree priorities for research.
 3. Te Rūnanga o Ngāi Tahu, Papatipu Rūnanga, and resource management agencies should promote participatory research, involving Papatipu Rūnanga, as a means of planning, sharing basic information and building effective relationships with Papatipu Rūnanga.
 4. Resource management agencies when commissioning research could also contract for local and traditional knowledge to be provided by Papatipu Rūnanga or an individual appointed by the Papatipu Rūnanga, so that it is integrated with scientific knowledge.
 5. Ngāi Tahu should be contracted to undertake research programmes for matters that are of particular significance to Ngāi Tahu. The methodology, the outputs and the outcomes can be agreed between Ngāi Tahu and the resource management agency commissioning the research.
-

Rūnanga capacity

6. Resource management agencies could provide opportunities for members of Papatipu Rūnanga to “upskill” in resource management processes and practices. For example, agencies could provide workshops and seminars on topics identified by Papatipu Rūnanga, provide short-term placements with the agency and contract Ngāi Tahu to undertake specific projects (as suggested in other strategies).
7. Councils could encourage applicants to contract Papatipu Rūnanga to provide a cultural impact assessment. The cultural impact assessment would be included in the Assessment of Environmental Effects that accompanies resource consent applications that will be of significance to Papatipu Rūnanga.

Planning and policy making

8. Resource management agencies should advise the Papatipu Rūnanga of the plans they are intending to prepare over the next 10 years and the specific timeframes and milestones.
9. Papatipu Rūnanga and Councils should agree processes that ensure the participation of Papatipu Rūnanga in all resource management processes, including plan formulation, the resource consent process, and decision-making. These processes should recognise that Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga are more than a stakeholder or special interest group, because of, among other things:
 - their status as a Statutory Advisor to the Ministers of Fisheries and Conservation; and
 - the Statutory Acknowledgments relating to many lakes, rivers and wetlands within the rohe.

Monitoring

10. Papatipu Rūnanga could submit to the annual planning process seeking an allocation of financial and technical resources to projects that facilitate participation of Papatipu Rūnanga in water management activities.
11. Papatipu Rūnanga should maintain an inventory of projects that the various resource management agencies commit to, and follow the Annual Plan (or equivalent) process to make sure such actions receive an allocation of funding. Papatipu Rūnanga may also identify those projects that they believe should be financially supported by the Councils and submit these for inclusion in the Annual Plan.
12. Te Rūnanga o Ngāi Tahu, Papatipu Rūnanga, and resource management agencies should encourage long term research projects on changing patterns of water use and their effects on mauri, mahinga kai species and habitats.
13. Councils should commission Ngāi Tahu to test the extent of integration across land, water and coastal environs by examining the implications of the various regional plans for a given catchment or area within a region. For instance, Ngāi Tahu could choose a catchment as a case study and test whether the relevant district and regional water plan will contribute to the achievement of coastal plan objectives.

The study would identify the provisions that should be included in a land plan, or a catchment management plan. The assessment will also consider whether or not the performance measures in the various plans are sufficiently robust to actually measure progress toward objectives.

14. Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga support the investigation of the health risks of eating eels (and other traditional kai) because their long life expectancy can result in the accumulation of persistent toxins and endocrine disrupters.
15. Councils should establish, maintain, and strengthen regulatory and enforcement programmes. Where Papatipu Rūnanga have advised Council of a particular water management issue, Councils should advise the Rūnanga of the results of such programmes.

PART 3

7.0 INTRODUCTION

This part of the plan describes the performance indicators that Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga will use to monitor the implementation of the strategies in this Policy Statement by resource management agencies.

Two types of outcomes are described:

- environmental outcomes – these are the “on the ground” improvements sought for waterbodies with the rohe; and
- process outcomes – these outcomes describe the processes that will facilitate more effective participation of Papatipu Rūnanga in freshwater management.

Te Rūnanga o Ngāi Tahu is concerned to see that the anticipated environmental outcomes are not written in such general terms that it will be difficult for Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga to assess the specific improvements to waterbodies within its rohe. As Papatipu Rūnanga capacity to participate in freshwater management has increased they have become outcome-orientated. Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga are seeking greater specificity of environmental outcomes. They will:

- advocate for implementation of the strategies set out in this statement;
- discuss particular issues with resource management agencies; and
- develop a monitoring programme to assess the degree of implementation by resource management agencies.

7.1 PERFORMANCE INDICATORS

GOAL	ISSUE BEING ADDRESSED	POSSIBLE INDICATORS
Waahi tapu	Protection	Environmental outcome <ul style="list-style-type: none">• Percentage of the sites identified by Papatipu Rūnanga that are protected to their satisfaction.

GOAL	ISSUE BEING ADDRESSED	POSSIBLE INDICATORS
Mauri	Baseline information	<p>Process outcome</p> <ul style="list-style-type: none"> • Number of observation-based programmes that have been established to enable Papatipu Rūnanga to assess the mauri of waterbodies. • A clear link is established between traditional management techniques and provisions of statutory planning documents such as rules.
	Water quantity	<p>Environmental outcome</p> <ul style="list-style-type: none"> • Number of catchments where a minimum acceptable flow has been established. • Actual efficiency gains in water usage for catchments identified by Papatipu Rūnanga as priorities • Degree of satisfaction among Papatipu Rūnanga with the process for setting of flow regimes. <p>Process outcomes</p> <ul style="list-style-type: none"> • Preparation of a programme to review the flow regime in specific waterbodies of the region. • Number of observation-based programmes that have been established to enable Papatipu Rūnanga to participate in the setting of flow regimes. • The percentage of plans being prepared that are consistent with the expressed priorities of Papatipu Rūnanga • Number of catchment profiles that have been established by Papatipu Rūnanga.

GOAL	ISSUE BEING ADDRESSED	POSSIBLE INDICATORS
	Water quality	<p>Environmental outcome</p> <ul style="list-style-type: none"> • Number of Papatipu Rūnanga that are participating in water quality testing. • Area of wetlands restored (hectares) and the actual extent of riparian margins restored (kilometers). • Number of point source discharges to water that have been replaced by alternative methods. <p>Process outcomes</p> <ul style="list-style-type: none"> • Number of Papatipu Rūnanga that had the opportunity to identify their preferred water quality classifications. • Number of complaints from Papatipu Rūnanga concerning the adverse effects of activities on instream values. • Number of Papatipu Rūnanga that have received training in restoration techniques. • Development, by resource management agencies, of a strategy for the control of non-point source pollution.
	Integrated management	<p>Process outcomes</p> <ul style="list-style-type: none"> • Number of catchment-specific management plans or strategies prepared or proposed. • Number and type of working parties that have been convened to address resource management issues in an integrated manner.. • Number of working parties that have been convened to address resource management issues identified as significant by Ngāi Tahu.

GOAL	ISSUE BEING ADDRESSED	POSSIBLE INDICATORS
	Cumulative effect	Process outcomes <ul style="list-style-type: none"> • Papatipu Rūnanga are confident that the monitoring programmes developed by Councils address the issue of cumulative effects. • Number of cumulative impact assessments provided by applicants as part of their resource consent application
Mahinga kai	Baseline information	Process outcomes <ul style="list-style-type: none"> • Number of programmes/projects that have been established to enable Papatipu Rūnanga to assess mahinga kai species and habitats.
	Habitat management	Environmental outcomes <ul style="list-style-type: none"> • Number of significant habitats restored or enhanced • Number of complaints from Papatipu Rūnanga identifying the adverse effects that permitted activities have had on mahinga kai habitats.
	Species management	Environmental outcome <ul style="list-style-type: none"> • Number of waterbodies where the abundance and diversity of mahinga kai species has been enhanced. Process outcome <ul style="list-style-type: none"> • Number of stock assessments undertaken.

GOAL	ISSUE BEING ADDRESSED	POSSIBLE INDICATORS
Kaitiakitanga	Information collection	<p>Process outcomes</p> <ul style="list-style-type: none"> • Percentage of research projects that are consistent with Ngāi Tahu’s research priorities as identified in its research strategy. • Percentage of research projects commissioned that Ngāi Tahu participated in. • Number of cultural impact assessments prepared by Papatipu Rūnanga . • Number of research projects that resource management agencies commissioned Ngāi Tahu to deliver. • Number of training sessions / workshops provided by resource management agencies to upskill Papatipu Rūnanga
	Planning & policy	<p>Process outcomes</p> <ul style="list-style-type: none"> • Satisfaction of Papatipu Rūnanga with the processes that have been established and their level of participation. • Number of annual plans that include an allocation of resources to iwi based projects.
	Monitoring	<p>Process outcomes</p> <ul style="list-style-type: none"> • Number of case studies undertaken by Papatipu Rūnanga to assess the integration of planning documents.

**APPENDIX 1- CONSULTATION WITH TE RŪNANGA O NGĀI TAHU AND
PAPATIPU RŪNANGA**

IWI AUTHORITY

Te Rūnanga o Ngāi Tahu
PO Box 13 046
CHRISTCHURCH

Ph (03) 366 4344
Fax (03) 377 7833

PAPATIPU RŪNANGA

West Coast region

Papatipu Rūnanga to be consulted on resource management matters are:

Kati Wae Wae Runaka
P O Box 37
Hokitika
Ph (03) 755 5337
Fax (03) 755 5337
Email admin@katiwaewae.org.nz

Te Rūnanga o Makawhio
PO Box 415
Greymouth
Ph (03) 768 9262
Fax (03) 768 9245
Email makawhiol@xtra.co.nz

Canterbury region

Papatipu Rūnanga to be consulted on resource management matters are:

Kaikōura Rūnanga
Takahanga Marae
PO Box 39
Kaikōura
Ph (03) 319 6523
Fax (03) 319 6443
Email takahangahanga.marae@clear.net.nz

Te Ngāi Tūahuriri
Tuahiwi Road
PO Box A
Tuahiwi 8250
Ph (03) 313 5543
Fax (03) 313 5542
Email tuahuriri@xtra.co.nz

Onuku Rūnanga
PO Box 8119
Riccarton
Christchurch
Ph (03) 3047607
Email onukul@xtra.co.nz

Te Taumutu Rūnanga
PO Box 4532
Christchurch
Ph (03) 379 5680
Fax (03) 365 3641
Email taumutu@ngaitahu.iwi.nz

Te Rūnanga o Koukourārata
PO Box 3281
Christchurch
Ph (03) 365 3281
Email koukourarata@xtra.co.nz

Te Rūnanga o Arowhenua
PO Box 69
Huirapa Street
Temuka
Ph (03) 615 9646
Fax (03) 615 6263
Email arowhenua@xtra.co.nz

Wairewa Rūnanga
PO Box 21152
Edgware
Christchurch
Ph (03) 3251919
Fax (03) 3554964
Email wairewa@xtra.co.nz

Te Rūnanga o Waihao
56 Kent St
Timaru
Ph (03) 684 6206
Fax (03) 684 6795

Te Hapū of Ngāti Wheke (Rapaki)
PO Box 107
Lyttelton
Ph (03) 328 9415
Fax (03) 328 7087
Email rapaki@xtra.co.nz

Te Rūnanga o Moeraki
Tenby Street
Moeraki
Phone (03) 4394816
Fax (03) 439 4400
Email moeraki@xtra.co.nz

Otago region

Papatipu Rūnanga to be consulted on resource management matters are:

Te Rūnanga o Moeraki
Tenby Street
Moeraki
Phone (03) 4394816
Fax (03) 439 4400
Email moeraki@xtra.co.nz

Kāti Huirapa Rūnanga ki Puketeraki
C/- Karitane Post Office
McLachlan Rd
Puketeraki
Otago
Phone (03) 465 7300
Fax (03) 465 7318
Email puketeraki@xtra.co.nz

Ōtākou Rūnanga
Tamatea Road
RD 2
Ōtākou
Dunedin
Phone (03) 478 0352
Fax (03) 478 0354
Email otakou@xtra.co.nz

Hokonui Rūnaka Incorporated Soc.
C/- P O Box 114
Gore
Phone (03) 2087954
Fax (03) 2087964
Email hokonui@xtra.co.nz

Applicants for resource consents

Within the Otago region, applicants who are either in the process of preparing a resource consent application or wanting to consult with Papatipu Rūnanga about a resource consent prior to it being lodged should contact:

Kāi Tahu Ki Otago Ltd
Nespat House
320 Princess Street
PO Box 446
Phone (03) 4770071
Fax (03) 4770072
Email ktkoltd@earthlight.co.nz

Kāi Tahu Ki Otago Ltd is a resource management consultancy that has been established jointly by the four Papatipu Rūnanga to assist resource consent applicants by facilitating appropriate consultation with Papatipu Rūnanga.

Southland region

Papatipu Rūnanga to be consulted on resource management matters are:

Hokonui Rūnaka Incorporated Soc.
C/- PO Box 114
Gore
Phone (03) 2087954
Fax (03) 2087964
Email hokonui@xtra.co.nz

Awarua Rūnanga
PO Box 19
Bluff
Ph (03) 212 8652
Fax (03) 212 8653
Email awarua@xtra.co.nz

Waihopai Rūnaka
PO Box 7017
Invercargill
Ph (03) 216 9917
Fax (03) 216 9916
Email waihopai@xtra.co.nz

Oraka Aparima Rūnaka
115 Palmerston St
Riverton
Ph / fax (03) 234 8192
Email orakaaparima@xtra.co.nz

Resource management

Te Ao Mārama is a resource management consultancy that has been established jointly by the four Papatipu Rūnanga to assist resource management agencies and resource consent applicants by facilitating appropriate consultation with Papatipu Rūnanga.

The contact details for Te Ao Mārama are:

Te Ao Mārama
190 Forth Street
PO Box 990
Invercargill
Ph (03) 214 1573
Fax (03) 214 1505

APPENDIX 2 – GLOSSARY

Iwi authority	The authority that represents an iwi and which is recognised by that iwi as having authority to do so. Pursuant to section 15 of Te Rūnanga o Ngāi Tahu 1996 resource management agencies are to consult with Te Rūnanga o Ngāi Tahu, as the iwi authority.
Iwi management plan	A relevant planning document that is recognised by the iwi authority affected by this plan. Provisions of the Resource Management Act 1991 require local authorities to have regard to such plans.
Kaitiakitanga	Means the exercise of guardianship.
Mauri	Refers to the essential life force or principle, a metaphysical quality inherent in all things, both animate and inanimate.
Mahinga kai	Means food and other resources and the areas that they are sourced from or propagated.
Papatipu Rūnanga	The First Schedule of Te Rūnanga o Ngāi Tahu Act 1996 lists the 18 Papatipu Rūnanga of Ngāi Tahu Whānui and their respective takiwā.
Papatūānuku	Mother earth.
Rohe	Area.
Rāhui	Restrictions or controls that are put in place by tangata tiaki to manage a resource or area in accordance with tikanga.
Tangata tiaki	Are specifically appointed guardians (people) that are responsible for protecting taonga resources. Their obligations include enforcement of tikanga and customary practices.
Taonga	Treasured possessions, both tangible and intangible.
Tikanga	Customs.
Wāhi tapu	Places of sacred and extreme importance.

ACKNOWLEDGMENTS

Many people contributed to the development of this Policy Statement including:

- Diane Crengle who, during her time as Natural Resource Manager, prepared many of the initial papers used in the development of this Policy Statement.
- Members of Ngāi Tahu Whānui who are the resource management practitioners working on behalf of their Rūnanga. Many of the strategies in the policy state the “best practices” that in many instances are being implemented by the Papatipu Rūnanga.
- The members of the working groups that supported the Mahika Kai C-Team during the claim negotiations. Many of the objectives and policies stem from these discussions.
- Representatives of Papatipu Rūnanga who commented on the draft statement.
- Kāi Tahu Ki Otago Ltd and Te Ao Mārama.
- Representatives of environmental agencies that attended the initial workshop in 1997.
- Staff within the Southland Regional Council, Otago Regional Council and Canterbury Regional Council who provided valuable comment on the draft statement.
- Jim Sinner.

WRITTEN REFERENCES USED

Beattie, James Herries. (1994). *Traditional Lifeways of the Southern Māori: The Otago University Museum Ethnological Project, 1920*. Edited by A, Anderson. University of Otago Press in association with Otago Museum.

Best, Elsdon. (1986) *Spiritual and Mental Concepts of the Māori*. Dominion Museum Monograph No. 2. Wellington.

Cambell GH & Matunga HP (1998) *The Treaty of Waitangi and Auckland's Water Supply: Implications for Future Development*". A report to the Auckland Regional Authority Works Committee.

Douglas, Edward MK (1984) *He Timatanga. Waiora, Waimāori, Waikino, Waimate, Waitai*. Occasional Paper No. 27. Centre for Māori Studies. University of Waikato.

Evison, Harry. (1993). *Te Wai Pounamu*. Aoraki Press in association with the Ngāi Tahu Māori Trust Board and Te Rūnanga o Ngāi Tahu.

Goodall, Anake, et. al. (1990). *Māori Perspective to Water*.

Goodall Anake (April 1990) *Ko Waitaki te awa, Ka roimata nā Aoraki i riringi: Kai Tahu perspective on proposed development of the Lower Waitaki River*. Aoraki Press

Goodall M (Ed), (1997) *Te Whakatau Kaupapa O Murihiku*, Aoraki Press.

Gray, Rev. M.M., Hayward, J.A., de Ronde and Shearer D.J. (Aug. 1988)
The Treaty of Waitangi and it's Significance for Resource Management Law Reform.
Unpubl. Report for the Ministry of the Environment.

Gray, Rev. M.M. (27 June 1995) *Clashes Between Environmental Science and Culture*.
Address to the Public Health Association Conference.

Kaikōura Rūnanga, (Dec 1997) *Information for CRC on Ngāi Tahu values and desired water quality standards for rivers within the takiwā of Te Rūnanga of Ngati Kuri Kaikōura*.

Kai Tahu Ki Otago Ltd (1996) *Kāi Tahu Ki Otago Natural Resource Management Plan*.

Marsden M (1988) *Resource Management Law Reform – The Natural World and Natural Resources: Māori Value Systems and Perspectives – Working Paper No. 29*.

Marsden, Māori. (1992). God, Man and Universe. *Te Ao Hurihuri*. Ed. Micheal King.
Reed Publ. Auckland.

McCan C. and McCan D. (1990) *Water: Towards a bicultural perspective*. Centre for Resource Management, Lincoln University, Canterbury.

Ministry for the Environment (1998) *Flow Guidelines for Instream Values*. Ministry for the Environment, Wellington.

Mitchell CP and Davis Te Maire KTA (1993) *Mahinga kai Survey of the Upper Waitaki A report prepared for ECNZ*.

Mosley M.P (eds) (1992), *Waters of New Zealand*, New Zealand Hydrological Society.

Ngāi Tahu Claims Settlement Act (1998).

Ngāi Tahu Group Management (1998) *Te Karaka Special Edition Crown Settlement Offer*. Ngāi Tahu Publications Ltd.

Otago Regional Council (1998) *Proposed Regional Water Plan*.

Parsonson, GS (Aug 1988) *Cultural and Ethical Values*. National Water Conference. Dunedin.

Patrick M (1987) *Māori Values of Soil and Water*, Soil and Water.

Roberts, Mere., Norman, W., Minhinnick, N., Wihongi, D. & Kirkwood, C. (1995). *Kaitiakitanga: Māori Perspectives on Conservation*. Pacific Conservation Biology. 2: 7-20. Surrey Beatty & Sons. Sydney.

Tau Te Maire, Goodall Anake, Palmer David, and Tau Rakihia (1990), *Te Whakatau Kaupapa – Ngāi Tahu Resource Management Strategy for the Canterbury Region*. Aoraki Press.

Taylor A & Patrick M (Summer 1987) *Looking at water through different eyes – the Māori perspective*. Soil and Water.

Te Rūnanga o Ngāi Tahu Act 1996.

Te Puni Kōkiri (1993) *Ngā Kai o Te Moana – Customary Fisheries*.

Te Taumutu Rūnanga *Te Taumutu Rūnanga Water Policy*.

Waitangi Tribunal (1991) *The Ngāi Tahu Report*. Brooker and Friend, Wellington.

Waitangi Tribunal (1992) *The Ngāi Tahu Sea Fisheries Report*. Brooker and Friend, Wellington.

Williams J (1997) *Mauri and the Traditional Māori Environmental Perspective*. Environmental Perspectives, Issue 14, March/April 1997.