BEFORE THE ENVIRONMENT COURT

Under	the Resource Management Act 1991 ("Act")
In the matter of	appeals under clause 14 of the First Schedule to the Act concerning the Proposed One Plan for the Manawatu-Wanganui Region and the topic of Surface Water Quality – Non-point source pollution (Chapter 6, Chapter 13, Schedule AB and Schedule D)
between	**FEDERATED FARMERS OF NEW ZEALAND** ENV-2010-WLG-000148
and	**MINISTER OF CONSERVATION** ENV-2010-WLG-000151
and	**DAY, MR ANDREW** ENV-2010-WLG-000158
and	**HORTICULTURE NEW ZEALAND** ENV-2010-WLG-000155
and	**WELLINGTON FISH & GAME COUNCIL** ENV-2010-WLG-000157
and	**MANAWATU-WANGANUI REGIONAL COUNCIL** Respondent

Statement of Evidence in Chief of **GINA MARIE SWEETMAN** on behalf of the Wellington Fish & Game Council

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INTRODUCTION

1. My full name is Gina Marie Sweetman.

2. I hold the degrees of Bachelor of Planning and Masters of Planning (First Class Honours), both obtained from the University of Auckland in 1993 and 2006 respectively. I am a sole provider, trading as Sweetman Planning Services, practicing as a planning consultant throughout New Zealand, and based in Wellington. I have been engaged in the field of planning and resource management for 19 years. My experience includes working for local government, central government and as a planning consultant. Amongst other roles, I have previously been employed by the Ministry for the Environment, either as an employee or as a consultant, as a senior policy analyst and Manager of the Resource Management Practice team, Project Manager for the Sustainable Water Programme of Action, Project Manager for the Board of Inquiry for the Proposed National Policy Statement on Freshwater Management and Manager, Resource Management Policy. I have held the position of Acting Manager, Environmental Policy at the Ministry of Agriculture and Forestry as a consultant. I was also engaged by Te Puni Kokiri as a Principal Policy Analyst in their Environmental Issues team.

3. I am a full member of the New Zealand Planning Institute. I am completing my third term as a Councillor on the Council of the New Zealand Planning Institute representing Wellington and Marlborough. I am an accredited Independent Commissioner. I am currently a Hearings Commissioner for the Proposed Canterbury Regional Policy Statement.

4. My experience covers a wide variety of planning issues, both at a policy and implementation level. My roles at the Ministry for the Environment, the Ministry of Agriculture and Forestry and Te Puni Kokiri have all involved significant involvement in the development and finalisation of the National Policy Statement for Freshwater Management 2011 ("the **NPSFM**"), the wider Government Water Programme, the Land and Water Forum and in wider resource management reforms, in particular the 2005 and 2009 amendments to the Resource Management Act 1991 (**"the RMA"**). I also have significant experience in promulgating plan changes and in preparing and processing applications for resource consents. In addition, I have significant experience in

developing and delivering training to a wide range of audiences on all aspects of the RMA.

5. I have read the Environment Court's Code of Conduct (2011) for expert witnesses and this evidence has been prepared in accordance with that code. I agree to comply with the terms of the Code. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief 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 I express.

6. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

7. I have been engaged by Wellington Fish and Game ("Fish and Game") to provide resource management planning advice and to present planning evidence with respect to its appeal on the Proposed Horizons One Plan ("the POP"). .

8. My statement of evidence covers Chapters 6 and 13 of the POP and provides an assessment of how the:
    - Notified version of the POP ("the NV POP"),
    - Decisions version of the POP ("the DV POP"),
    - Mediated version of the POP ("the MV POP"), and
    - The version of the POP submitted to the Court by Ms. Clare Barton on behalf of the Horizons Manawatu Regional Council, including provisions agreed through mediation ("the CBV POP")

    respectively give effect to the NPSFM in respect of surface water quality.

9. In preparing my evidence, I have read the following material:
    - The relevant sections of the NV POP;
    - The relevant sections of the DV POP;
    - The relevant sections of MV POP;
    - The CBV POP;
    - The NPSFM;

- The National Policy Statement for Freshwater Management 2011: Implementation Guidance 2011 ("**the NPS Guide"**), published by the Ministry for the Environment;
- The appeal of Fish and Game and the Minister of Conservation;
- The evidence of Helen Marr and Clare Barton;
- The Record of Technical Conferencing.

10. To assist the Court, I have prepared a table attached as **Appendix 1** of my evidence, which sets out the five versions of the One Plan that I have assessed. This table also sets out the relevant policies pertaining to water quality in the NPSFM. A copy of the NPSFM is attached as **Appendix 2.** A copy of the Ministry for the Environment's publication "The National Policy Statement for Freshwater Management 2011: Implementation Guidance 2011" is attached as **Appendix 3.** I have set out the relevant definitions (in bold and italics) from the NPSFM in **Appendix 4** to assist in the interpretation of the Objectives and Policies of the NPSFM. After each definition, I have also included the explanation given for each term in the NPS Guide, which I have underlined. I note that the explanations provided in the NPS Guide, as with the Guide itself, have no statutory weight. However, I consider that they assist in the interpretation of the definitions and their relevant application to the Objectives and Policies.

THE NPSFM

11. The objectives and policies that are relevant to my evidence are Objectives A1 and A2 and Policies A1, A2 and E1. This is because they relate to water quality and the timeframe in which to give effect to the NPSFM. I have set these out below:

Objective A1
To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants.

Objective A2
The overall quality of fresh water within a region is maintained or improved while:
a) protecting the quality of outstanding freshwater bodies
b) protecting the significant values of wetlands and

c) *improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.*

Policy A1

By every regional council making or changing regional plans to the extent needed to ensure the plans:

a) *establish freshwater objectives and set freshwater quality limits for all bodies of fresh water in their regions to give effect to the objectives in this national policy statement, having regard to at least the following:*
   i) *the reasonably foreseeable impacts of climate change*
   ii) *the connection between water bodies*
b) *establish methods (including rules) to avoid over-allocation.*

Policy A2

Where water bodies do not meet the freshwater objectives made pursuant to Policy A1, every regional council is to specify targets and implement methods (either or both regulatory and non-regulatory) to assist the improvement of water quality in the water bodies, to meet those targets, and within a defined timeframe.

Policy E1

a) *This policy applies to the implementation by a regional council of a policy of this national policy statement.*
b) *Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2030.*
c) *Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2014, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2030.*
d) *Any programme of time-limited stages is to be formally adopted by the council within 18 months of the date of gazetting of this national policy statement, and publicly notified.*
e) *Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.*

12. In summary, I consider that the NPSFM sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while also providing

for economic growth, within set water quantity and quality limits. Such limits are to be set so that they reflect local and national values, being the values set out in the preamble of the NPSFM, underlaid by the best available scientific and socio-economic knowledge. The setting of limits is also subject to Part II of the RMA.

13. The preamble in the NPSFM states the following about national values:
Water is valued for the following uses:

- *domestic drinking and washing water*
- *animal drinking water*
- *community water supply*
- *fire fighting*
- *electricity generation*
- *commercial and industrial processes*
- *irrigation*
- *recreational activities (including waka ama)*
- *food production and harvesting eg, fish farms and mahinga kai*
- *transport and access (including tauranga waka)*
- *cleaning, dilution and disposal of waste.*

There are also values that relate to recognising and respecting fresh water's intrinsic values for: safeguarding the life-supporting capacity of water and associated ecosystems; and sustaining its potential to meet the reasonably foreseeable needs of future generations. Examples of these values include:

- *the interdependency of the elements of the freshwater cycle*
- *the natural form, character, functioning and natural processes of water bodies and margins, including natural flows, velocities, levels, variability and connections*
- *the natural conditions of fresh water, free from biological or chemical alterations resulting from human activity, so that it is fit for all aspects of its intrinsic values*
- *healthy ecosystem processes functioning naturally*
- *healthy ecosystems supporting the diversity of indigenous species in sustainable populations*
- *cultural and traditional relationships of Maori with fresh water*
- *historic heritage associations with fresh water*

- *providing a sense of place for people and communities.*

All the values in both lists are important national values of fresh water.

14. Under Policy E1(b), every regional council is required to implement the NPSFM policies as soon as is reasonable in the circumstances, and the policies must be implemented by no later than 31 December 2030. If the policies cannot be implemented by 31 December 2014, then the policies must be implemented in defined stages so that they are fully implemented by 31 December 2030.

15. In my evidence, I assess the extent to which the NV POP, the DV POP, and the MV POP give effect to the NPSFM. I recognise that the final version of the POP does not have to implement all of the policies of the NPSFM at the present time unless it is reasonable in the circumstances that apply now.

16. At the outset, I note that it is my view that:

- The Schedule AB values in the POP describe the intended environmental outcomes for each Water Management Zone and this is consistent with PolicyA1a) in the NPSFM;

- The Schedule D numbers in the POP are "limits" that represent what is required to have healthy rivers, streams, and lakes and this is consistent with the use of the word "limits" and Policy A1a) in the NPSFM;

- The water management zones that are included in Table 13.1 the DV POP, and the ones that Fish and Game seek to have included in that Table, are over-allocated in respect of water quality and do not meet the freshwater objectives of Policy A1a) represented by the Schedule AB Values. The source of the over-allocation has been identified as being non-point source. I note for clarity that some other water management zones within the Region are over allocated in respect of water quality, from point source pollution. These are addressed elsewhere within the POP.

- The maximum nitrogen leaching rates allowed for land within specified Land Use Capability (LUC) zones, which include step downs to year 20, and which are contained in the NV POP (amended as proposed by Fish and Game) are targets that are intended to assist in improving water quality in those catchments over time;

- The nitrogen leaching targets for each LUC zone are consistent with what the NPSFM defines as targets for over-allocated catchments;

- A target is not something that you achieve if you feel like it, as it is defined in the NPSFM as a "limit which must be met at a defined time in the future";

17. Having reviewed all three versions of the POP, I consider that the NV POP, including the amendments proposed by Fish and Game, is the version which will give effect to the policies in the NPSFM because:

    (a) The regulatory framework in Chapter 13 will give effect to the policy framework in Chapter 6. There is a clear link between the RPS and RP provisions in the NV POP, provided that the changes proposed by Fish and Game are made. I consider that there is a disjuncture in the DV POP. The MV POP is an improvement to the DV POP, but does not have the clear link that the NV POP does. Ms Marr addresses the framework further in her evidence.

    (b) It provides an integrated approach to improving water quality in degraded catchments by including all intensive land use activities that have been demonstrated to lead to degraded water quality;

    (c) It includes targets in the form of nitrogen leaching rates that reduce over a 20 year timeframe, which will lead to improvements in water quality in over-allocated catchments; and

    (d) It will result in improvements over time in water quality in over-allocated catchments; rather than the maintenance of, or potentially a reduction in, water quality that could eventuate under the DV POP and MV POP.

18. In the present circumstances, and relying on the evidence of Ms Marr for the assessment of the versions of the POP, I consider that, in terms of Policy E(1)b) of the NPSFM, the NV POP, with the amendments sought by Fish and Game, should be approved by the Court.

RESPONSE TO HORIZONS ASSESSMENT OF THE NPSFM

19. Ms Barton provides her assessment of the CBV POP against the NPSFM in paragraphs 93-103 of her evidence. In this section, I provide my response to her assessment. I note that the version of the plan she is now proposing is based on the DV POP, includes the MV POP, but also proposes further amendments.

20. I do not agree with the conclusion of Ms Barton in paragraph 103 of her evidence that *"the DV POP, in conjunction with the amendments I propose to the policy provisions of Chapters 6 and 13, gives effect to the NPS Freshwater".* I largely agree with Ms Barton that the CBV POP is heading in the right direction, but I do not agree that it gives effect to the NPSFM by fully implementing all the objectives and policies of the NPSFM that are relevant to water quality as required by Policy E1. As I set out later in my evidence, I consider that the NV POP, with the amendments sought by Fish and Game, is the most preferable in how it gives effect to the NPSFM.

21. In terms of the timing of giving effect to the NPSFM, the NPSFM does not require that the outcomes sought by the NPSFM and its objectives are achieved within a defined timeframe. Rather, the NPSFM requires that provisions are made operative within a defined timeframe.

22. In my opinion, the timing set out in Policy E1 signals the magnitude of the task required to give effect to the NPSFM. This task should not be considered lightly. The Horizons Regional Council has clearly undertaken significant work already to determine Schedule AB Values for its waterbodies, including identifying over-allocated waterbodies and Water Management Sub-Zones, and also to identify the "numeric" in Schedule D so as to maintain those Values or achieve them where the quality is over-allocated. Given that these "numerics" have been determined and set so as to maintain or achieve the Schedule AB Values, I consider that the numerics should be referred to as limits for the purpose of how they relate to Schedule AB Values. I discuss the matter of limits and their application, further in this section.

23. In paragraph 97 of Ms Barton's evidence, she states that there are gaps in evidence, knowledge and understanding in respect of the water quality in some waterbodies and the impact of rural land use activities other than dairying on water quality, in all Water Management Sub-Zones, including the over-allocated ones. Further, Ms Barton states that she has proposed policies that will signal that additional land uses and water management zones may be added to the framework over time as further monitoring and assessment work is completed, and that there will need to be a review of the Plan initiated within five years. In my opinion, this statement recognises that the DV POP and the CBV POP, including the proposed amendments, do not fully give effect to the NPSFM, contrary to what Ms Barton asserts.

24. The issue of the nomenclature of numerics has been discussed in Ms Marr's evidence. In my opinion, the numerics contained in Schedule D have been designed to be limits, as defined in the NPSFM, as they have been set so as to meet the objective or Values set out in Schedule AB.

25. I do not consider that the Schedule D numbers are targets, in terms of how targets are defined in the NPSFM. I address this further in paragraph 32. I do not consider it is good practice to use terms in the POP that are inconsistent with those within the NPSFM. The Schedule D numbers are also not standards, which I discuss below. I consider that the term "numeric" is too vague and uncertain for general consistency of understanding and application of the intent of the numbers.

26. At a high level, in the RPS section of all the versions of the POP, in terms of how the relevant objectives and policies are framed, I believe that the Schedule D numbers are limits. However, I consider that their application as limits falls down in the regional plan component of all three versions of the POP.

27. In particular, I do not fully agree with Ms Barton's statement in paragraph 36 where she discusses the application of the Schedule D limits in the regional plan component, and states:
"The numerics are applied as absolute standards in the context of permitted activities and are threshold limits for assessment through the resource consent process."

28. In my opinion, the limits are only standards for some permitted activity rules, and for those, generally it is only one element of the Schedule D limits that are referenced. I also do not consider that they are absolute standards. To expand on this, the limits could be considered as standards if they were required to be met to enable a matter to be a permitted activity. A Schedule D limit has no statutory weight as being an "absolute standard" unless they are set out as conditions, standards or terms for a permitted or controlled activity. Even then, if they are breached, they are not "absolute standards". A resource consent can still be applied for if the limit is not met and non-compliance with them is not a prohibited activity.

29. In terms of the issue of thresholds, in my opinion, the Schedule D limits are only specifically threshold limits for assessment through the resource consent process for a

small number of activities in the Rule tables. This is where they are listed as matters of control or discretion.

30. I note that the Schedule D limits will be considered in the assessment of any discretionary or non-complying activity resource consent; as under s104(1)(b)(v) and (vi), a decision maker must have regard to the objectives and policies of any operative or proposed plan or policy statement. I note that Schedules AB and D have the greater weight and direction in Chapter 6, being the Regional Policy Statement objectives and policies. However, the RMA requires that any application must also be assessed in respect of effects on the environment s104(1)(a) and any other matters (s104(1)(c)). This does not make the Schedule D limits "thresholds" for assessment; rather they are matters for assessment that will be considered on a case-by-case basis in the assessment and decision-making on a resource consent application.

31. The implementation gap between the Schedule AB Values and the Schedule D limits and the rule framework and the need to close that gap was outlined by Ms Kate McArthur in her paper titled "Setting water quality limits: lessons learned from regional planning in the Manawatu-Wanganui Region". As Ms McArthur states: *"an approach that is unlikely to be within the scope of the One Plan appeals is the potential to elevate some of the water quality limits to the level of numeric objectives. In conjunction with an approach which applies the limits as rules (standards) and a non-complying activity status for activities which exceed the limits, numeric objectives would provide considerable clarity about what the Plan is trying to achieve in the long term across all activities which affect water quality (including point and non-point sourced contaminants) (pg. 18)".* I have attached a copy of her paper as **Appendix 5.**

32. In paragraph 96(a) Ms Barton states that she considers that the framework of the CBV POP gives effect to the NPSFM. I agree with Ms Barton that Objective 6-1 and Policies 6-3 to 6-5 provide a framework for dealing with when Schedule D limits are being met, where water quality is over-allocated (the limits are not being met) and where it is not known whether the limits are being met or not. The objectives and policies demonstrate that the waterbodies have had their values assessed and determined (Freshwater Objectives), and the Schedule D limits have been determined as appropriate limits to maintain or achieve those Values. The policies set out how waterbodies will be managed where they already achieve the limits and how they will be managed when they do not achieve them. I discuss to what extent I consider that the three different sets

of objectives and policies and rules in the three versions of the POP give effect to the NPSFM further in my evidence.

33. In paragraph 96(1), Ms Barton refers to the Schedule D limits as being targets. For the reason set out above, I do not agree that the Schedule D limits are targets. This is particularly the case as the Schedule D limits apply to all water management subzones, not just to ones where there is over-allocation, and there is no defined timeframe in which to achieve the Schedule D limits within over-allocated water management sub-zones.

34. I agree with Ms Barton's statement in paragraph 96(b) that there are no specified timeframes in the DV POP in which over-allocated catchments are to reach established levels. By established levels, I assume Ms Barton is referring to the Schedule D limits for nitrogen. My understanding of Ms Barton's proposed approach for existing dairy farms within targeted water management zones that do not meet the nitrogen leaching rates proposed in Rule 13.1 is:
    - That a step down applies over a four year timeframe, so that at the end of four years, those farms meet the nitrogen leaching rate; and
    - That where farms cannot meet the nitrogen leaching rate within that timeframe, that they are subject to a restricted discretionary consent, where conditions are imposed requiring the implementation of "reasonably practicable farm management practices", so that the nitrogen leaching rates are met within a ten year frame.

    New dairy farms have to meet the nitrogen leaching rates immediately.

35. I do not consider that introducing either the four or ten year timeframe would make the nitrogen leaching rates targets as meeting those numbers would not result in improvements in water quality, as I understand it based on the evaluation in Ms Marr's evidence. Ms Marr discusses the application and adequacy of the nitrogen leaching rates in her evidence, in so far as which approach would result in improvements in water quality within over-allocated water management sub-zones.

36. In Paragraph 99, Ms Barton says that the CBV POP gives effect to the NPSFM because:

Based on the evidence of Dr Roygard the N leaching loss limits set in Table 13.2 do as a minimum maintain water quality in the targeted catchments and therefore gives effect to the NPS Freshwater.

37. In respect of these targeted catchments, as I understand it, Ms Barton is referring to those that are over-allocated in terms of water quality. I have earlier set out Policy A2 of the NPSFM, which is relevant for over-allocated water management sub-zones.

38. I do not consider that maintaining water quality is equivalent to assisting the improvement of water quality, where water quality does not meet the freshwater objectives. I therefore do not believe that this approach gives effect to the NPSFM.

39. In paragraph 102 of Ms Barton's evidence, she states that:
"I do not consider that the NPS Freshwater requires that any particular activity must shoulder any requirement to achieve the maintenance and enhancement of water quality. Certainly, the framework in the DV POP recognises there are a number of activities that contribute (point and non-point source discharges) to water quality issues and all of which are guided through the approach taken to water management in the DV POP towards maintaining and enhancing water quality".

40. I agree with Ms Barton that the NPSFM does not require any particular activity to shoulder any requirement to achieve the maintenance and enhancement of water quality. The NPSFM requires an integrated approach to the management of freshwater, as set out in Objective C1 and Policies C1 to C3, as follows:

Objective C1
To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.

Policy C1
By every regional council managing fresh water and land use and development in catchments in an integrated and sustainable way, so as to avoid, remedy or mitigate adverse effects, including cumulative effects.

Policy C2

By every regional council making or changing regional policy statements to the extent needed to provide for the integrated management of the effects of the use and development of land on fresh water, including encouraging the co-ordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure.

41. In the context of this appeal, I consider this means that all relevant land use activities that may be affecting water quality need to be included in any management approach. The non-inclusion of rural land use activities that may adversely affect water quality means that the CBV POP does not give effect to the NPSFM. While there are other rules that manage water quality through the Plan, regulating only dairy farming means that other activities may intensify if dairy farming is seen as more restrictive, and they may not be caught by the other rules. As set out in Ms Marr's evidence, this could lead to only maintenance of existing degraded water quality in some catchments, and an increase in degradation in others.

42. Ms Barton proposes a Policy 6-7B to "bolster the focus of the regulatory framework on dairy" and "signal that additional land uses and water management zones may be added over time". Having reviewed the proposed policy, I note that it only addresses monitoring and assessing particular water management subzones, and adding additional water management sub-zones through a plan change process. I do not believe that it "signals" that additional land use activities might be included within the regulatory framework.

ASSESSMENT OF THE NPSFM AGAINST THE POP

43. **Introduction**

Following from my response to Ms Barton's assessment of how the CBV POP gives effect to the NPSFM, I have assessed all five versions of the POP against the Objectives and Policies of the NPSFM. I have assessed each provision separately, and compared the different versions as to how, on their own, each provision weighs up against the NPSFM. I have also relied on the evidence of Ms Marr as to the interpretation and application of the planning framework proposed in the POP and I do not repeat her assessment. I have paid particular attention to Policies A1 and A2 of the NPSFM, as these are the policies that direct the Regional Council to undertake particular actions in order to achieve the stated objectives (A1 and A2).

Objective 6-1

44. In respect of objective 6-1, I prefer the NV POP, MV POP and CBV POP in respect to how they weigh up against the NPSFM than the DV POP. In particular, the DV POP only requires that the Schedule AB values are "had regard to", rather than the "recognise and provide for" in the NV POP and the "advances the achievement of" in the MV POP and CBV POP. In my understanding of the legal weight to be given to these terms, the term "have regard to" has lesser weight and obligation for positive action than the other two terms. In addition, the NV POP, MV POP and CBV POP all require that surface water bodies are managed in a manner that either sustains or safeguards their life supporting capacity. This wording reflects that of the NPSFM. However, I do note that there is no reference to ecosystem processes or indigenous species. I do not consider this to be a flaw, given that these matters are addressed within the Schedule AB Values and are managed through other provisions within the POP. Of the NV POP, MV POP and CBV POP, I prefer the terminology of "recognise and provide for" in respect of the Values in Schedule AB, as this has more legal certainty of application than "advances the achievement of". However, "advances the achievement of" is still better than "have regard to."

45. **Objective 6-2**

46. I consider that the Schedule AB *"Surface Water Management Values"* in conjunction with the relevant objectives and policies in all the versions of the POP set the freshwater objectives for the Region. Therefore, I consider that these give effect to Policy A2(a) of the NPSFM.

47. The Schedule AB values are set as management tools across both water management zones and sub-zones. These Values include for example, life-supporting capacity, aesthetics, contact recreation, stock water, etc. They cover a range of values from environmental bottom lines, which are of particular relevance to water quality, through to water use and cultural matters. The Values apply to both water quality and water quantity.

48. I believe that the DV POP, MV POP and CBV POP are preferable in respect to how they weigh up against the NPSFM than the NV POP. This is for the reason that they directly mention the Values in Schedule AB as being the relevant consideration, which is consistent with Policy A1.

Policy 6-1

49. This policy sets the framework for the remainder of the policies, and most importantly, how water quality is to be managed. Like any policy, it has to be read in conjunction with the over-riding objectives and other policies. As with Objective 6-1, I consider that the NV POP, MV POP and CBV POP versions of this policy are preferable and give effect to the NPSFM, and in particular Policy A1, as they place greater weight on the Schedule AB Values, and on the limits that have been established in Schedule D so as to maintain or achieve water quality, where water quality is degraded. I also support the reference to life-supporting capacity in the MV POP and CBV POP, as it better reflects the NPSFM.

50. **Policy 6-2**

This policy describes the purpose of Schedule D and their relationship with the Schedule AB Values. Importantly, it also sets out how the Schedule D "numerics" are to be used within the wider scheme of the POP. It provides that where they are not set as conditions of a permitted or controlled activity rule they are to be used to inform surface water quality management. I consider that this policy in all versions gives effect to Policy A1 of the NPSFM. However, I do not agree with the terminology used to describe the Schedule D "numbers" in any of the four versions. As I have stated earlier in my evidence, and as outlined in the evidence of Ms Marr, I prefer the term "limit".

51. **Policy 6-3**

All versions of this policy all seek to maintain water quality, where the relevant Schedule D limits are met. I consider that this is consistent and gives effect to Objective A1 of the NPSFM.

52. **Policy 6-4**

The purpose of this policy is to set out the relevant response where the existing water quality does not meet the Schedule D limits. I consider that the DV POP does not give effect to the NPSFM, and that the other versions do, including the CBV POP. This is because the DV POP provides that degraded water quality can be maintained, where it is not reasonably practicable to enhance water quality. It also only requires that regard be had to the likely effect on the relevant Schedule AB Value that the water quality limit is designed to safeguard. Objective A1 and Policy A2 of the NPSFM are clear that, where water quality is degraded, the overall quality of water needs to be enhanced. To allow continued maintenance of degraded water quality will not lead to an improvement.

53. **Policy 6-5**

All the versions of this policy provide direction on how activities are to be managed in areas where existing water quality is unknown. I consider that this is an appropriate response and is consistent with the NPSFM.

Policy 6-7

54. This policy addresses the management of land use activities whose diffuse discharges have been identified as impacting on water quality. Earlier in my evidence I have expressed my concern that not all activities that have been scientifically identified as contributing to degraded water quality within the Region are being regulated in the DV POP, MV POP or CBV POP. For this reason, I consider that the NV POP with the amendments proposed by Ms Marr provides a more integrated approach to managing water quality and gives effect to the NPSFM.

Objective 13-1

55. I note that the NV POP did not include an objective for Chapter 13. I therefore only comment on the DV POP, MV POP and CBV POP. I consider that the MV POP and CBV POP are preferable as they give greater weight to the Schedule AB values, through advancing their achievement, and include the requirement of safeguarding life supporting capacity.

Policy 13-1

56. Of the versions, I consider that the NV POP gives effect to the NPSFM, given the higher level of priority it affords to the overall management framework set out in Chapter 6, by requiring that it is had particular regard to. I note that having regard to the RPS is required under section 104; I support the requirement that particular regard is had to the water management framework, and in particular the Schedule AB Values and Schedule D limits on which the framework is based. Although I understand that Fish and Game has agreed through mediation to use of the words “must specifically consider,” I am concerned that is not a term used within the RMA and is therefore subject to interpretation. I prefer the NV POP wording.

Policies 13-2A and 13-2B

57. I note that these policies were not included in the NV POP. I do not have any concerns with the DV POP, MV POP or CBV POP, and I consider that these policies provide guidance on giving effect to the objectives and policies of the regional policy statement and regional plan components of the POP.

Policy 13-2C

58. I note that this policy was not included in the NV POP. Of the other versions, I consider that the recommended changes by Ms Marr to the CBV POP version is preferable in giving effect to the NPSFM. This is because this policy she proposes:
    - requires reductions in the amount of nitrogen leaching from all existing intensive land use activities that are exceeding the maximum nitrogen leaching rates over a four year period. The CBV POP only addresses existing dairy farms. The DV POP does not require any step down for existing dairy farms.
    - Establishes a step down approach to nitrogen leaching by existing intensive land use activities over a 20 year period. The 20 year level that existing activities will be required to meet is the level that new intensive land use activities will be required to meet on establishment.
59. As set out in Ms Marr's evidence, this approach will result in the improvement in water quality in over-allocated water management zones. I have earlier expressed my concern that not including all those intensive land use activities that are resulting in degraded water quality within a management framework does not give effect to the NPSFM.

Rule 13-1

60. Of the versions, I consider that the NV POP, with the amendments proposed by Ms Marr, is preferable and gives effect to the NPSFM, because this version:
    - includes all intensive land use activities that have been identified to result in degraded water quality
    - provides a regime where those activities have to reduce the amount of nitrogen leaching from their activities over a 20 year period.

    As outlined in Ms Marr's evidence, this approach will result in improvements in water quality. This will therefore achieve Objective A2 of the NPSFM and lead to achievement of Objective A1.

CONCLUSIONS

61. I have previously set out my conclusions in paragraph 17, where I conclude that, based on the above assessment, the NV POP with the changes sought by Fish and Game is the version which will effect to the NPSFM. I accordingly consider that, subject to the comments I have made above, those provisions should be included in the POP in place of those in the DV.

Gina Sweetman

2 April 2012

Appendix 1 Combined Table of Provisions from the NV POP, DV POP and MV POP

Notified Version Proposed One Plan NV POP	Decisions Version Proposed One Plan DV POP	Mediated Version Proposed One Plan MV POP (note only includes those provisions addressed in mediation)	Mediated Version Proposed One Plan, with Horizons Proposed Amendments CBV POP	Helen Marr Proposed Amendments
				greater. (iii) In year three there must be a further 33% reduction in the difference between the loss limit set under Table 13.1 and the nitrogen leaching maximum * set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. (iv) In year four (and beyond) the Table 13.2 nitrogen leaching maximums must be achieved. (f) ensure that cattle are excluded from surface *water*^ in accordance with Policy 13-2C(f) and (g) (g) an exception may be made to (g) in circumstances where landscape or geographical constraints make stock exclusion impracticable, in which case any unavoided loses of nitrogen, phosphorus, faecal contamination and sediment are remedied or mitigated by other works or environmental compensation. Mitigation works may include (but are not limited to) creation of wetland and riparian planted zones.
Rules: Agricultural Activities Table 13.1 sets out the target water management zones where management of intensive farming land-use activities will be specifically controlled. The table includes the dates after which the provisions of the One Plan that relate to these water management zones come into force.	**Rules - Agricultural Activities** Table 13.1 sets out the target *Water Management Sub-zones** where management of existing *dairy farming** *land*^ use activities must be specifically controlled.		**Rules - Agricultural Activities** Table 13.1 sets out the target *Water Management Sub-zones** where management of existing *dairy farming** *land*^ use activities must be specifically controlled.	

Notified Version Proposed One Plan NV POP	Decisions Version Proposed One Plan DV POP	Mediated Version Proposed One Plan MV POP (note only includes those provisions addressed in mediation)	Mediated Version Proposed One Plan, with Horizons Proposed Amendments CBV POP	Helen Marr Proposed Amendments
				conditions on their resource consent to ensure year 1 nitrogen leaching maximums are met within 4 years (d) Where an exception is made to the nitrogen leaching maximum under (c)(ii) those intensive farming land uses must be managed by consent conditions to ensure: (i) That the nitrogen leaching from the activity does not exceed the nitrogen leaching demonstrated for the property from 1 July 2010 to 31 June 2011. (ii) All reasonably practicable best management practices to minimise the loss of nitrogen, phosphorous, faecal contamination and sediment are implemented (iii) Any losses of nitrogen, which cannot be minimised under (d)(ii) are remedied or mitigated, including by other works or environmental compensation. Mitigation works may include (but are not limited to) creation of wetland and riparian planted zones (e) Where an exception is made to the year 1 nitrogen leaching maximum* under (c)(ii) those intensive farming land uses must be managed by consent conditions to ensure: (i) The nitrogen leaching maximum for year 1 shall be no greater than the actual demonstrated nitrogen leaching loss for the year from 1 July 2010 to 31 June 2011. (ii) In year two there must be a 33% reduction in the difference between the loss limit set under Table 13.1 and the nitrogen leaching maximum * set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the

Notified Version Proposed One Plan NV POP	Decisions Version Proposed One Plan DV POP	Mediated Version Proposed One Plan MV POP (note only includes those provisions addressed in mediation)	Mediated Version Proposed One Plan, with Horizons Proposed Amendments CBV POP	Helen Marr Proposed Amendments
			(iii) Herd homes and effluent capture; (iv) Winter feed pads and effluent capture; (v) Low nitrogen feeds; (vi) Replace nitrogen fertiliser with equivalent supplements; (vii) Graze animals off-farm over the winter months; (viii) Reducing stock rate; (ix) Best management (amount and timing and land area) of nitrogen fertiliser inputs; (x) Management of infrastructure (e.g. reducing leaks in effluent irrigation systems and lining of effluent ponds and feedpads); (xi) Nitrogen inhibitors; (xii) Non-pastoral land use; and (xiii) Creation of wetland and riparian zones. (h) The implementation of reasonably practicable farm management practices to reduce nitrogen leaching must achieve the nitrogen leaching rates for each *LUC** class of *land*^ as set out in Table 13.2 no later than the first ten year anniversary of the common catchment expiry dates set in Table 11A-1.	**Policy 13-2D: Resource consent decision making for *intensive farming** *land*^ uses** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *intensive farming** as a *land*^ use, the Regional Council must: (b) ensure that nitrogen leaching from the *land*^ is managed in accordance Policy 13-2C. (c) An exception may be made to (b) for existing *land*^ uses in the following circumstances: (i) where the existing intensive farming activity occurs on land that has 50% or higher of LUC Classes IV to VIII and has an average annual rainfall of 1500mm or greater. (ii) where existing intensive farming land uses cannot meet year 1 nitrogen leaching maximums in year 1, they shall be managed through

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			and (ii) the nitrogen leaching loss limit calculated under (c)(i) shall be reduced through conditions of consent to meet the Table 13.2 nitrogen leaching rate maximum in the following manner: (A) In year two there must be a 33% reduction in the difference between the loss limit set under (c)(i) and the *nitrogen leaching maximum** set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. (B) In year three there must be a further 33% reduction in the difference between the loss limit set under (c)(i) and the *nitrogen leaching maximum** set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. (C) In year four the Table 13.2 nitrogen leaching rate must be achieved. (d) an exception to (c) may be made in circumstances where: a. the land contains 50% or higher of LUC Classes IV to VIII and has an average rainfall per annum in excess of 1500mm. In relation to the exception identified in (d)(i) consent conditions will require: i. best management practices to be in place to minimise the loss of nitrogen, phosphorous, faecal contamination and sediment. ii. any losses of nitrogen, phosphorous, faecal contamination and sediment which cannot be avoided, remedied or mitigated are offset or mitigated including by way of environmental compensation offered by the applicant. New Dairy Farming* *land*^ uses (e) ensure that nitrogen leaching from new *dairy farming** *land*^ uses does not exceed nitrogen leaching rates based on the *natural capital** of each *LUC** class of *land*^ used for *dairy farming**. Restricted Discretionary Activity New and Existing Dairy Farming* *land*^ uses (considered under Rules 13-1A and 13-1C) (g) [sic] In relation to Rules 13-1A and 13-1C reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the *land*^ include but are not limited to: (i) Cut and carry; (ii) Intensive forage cropping;	been established in Table 13.2. (d) Existing intensive farming land uses regulated in accordance with (b)(i) must be managed to ensure that the leaching of nitrogen from those land uses does not exceed the nitrogen leaching maximums values for each year contained in Table 13.2, unless the circumstances in Policy 13-2D apply. (e) New intensive farming land uses regulated in accordance with (b)(ii) must be managed to ensure that the leaching of nitrogen from those land uses does not exceed the nitrogen leaching maximums values for year 20 contained in Table 13.2. (f) Intensive farming land uses regulated in accordance with (b) must exclude cattle from: (i) A wetland or lake that is rare habitat or threatened habitat or at risk habitat (ii) Any river that is permanently flowing, or is intermittently flowing and has an active bed width greater than 1 metre (when measured as an average across the property) at any time the bed contains water, unless the access is required for cattle to cross the river, in which case; (g) All places where cattle cross the river to result in more than 1350 cattle movements per week must be culverted or bridged and those culverts or bridges must be used by the cattle whenever they cross that river.

Notified Version Proposed One Plan NV POP	Decisions Version Proposed One Plan DV POP	Mediated Version Proposed One Plan MV POP (note only includes those provisions addressed in mediation)	Mediated Version Proposed One Plan, with Horizons Proposed Amendments CBV POP	Helen Marr Proposed Amendments
	discharges^ of *contaminants*^ into *water*^ or onto or into *land*^, the opportunity to utilise alternative *discharge*^ options, or a mix of *discharge*^ regimes, for the purpose of mitigating adverse *effects*^ where reasonably practicable, must be considered, including but not limited to: (a) discharging *contaminants*^ onto or into *land*^ as an alternative to discharging *contaminants*^ into *water*^, (b) withholding from discharging *contaminants*^ into surface *water*^ at times of low flow, and (c) adopting different treatment and *discharge*^ options for different receiving *environments*^ or at different times (including different flow regimes or levels in surface *water bodies*^). **Policy 13-2C: Management of *dairy farming* land*^ uses** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *dairy farming** as a *land*^ use, the Regional Council must: (a) have regard to Policy 6-7, (b) ensure that nitrogen leaching from the *land*^ is minimised as far as reasonably practicable for existing *land*^ uses, (c) ensure that nitrogen leaching from new *dairy farming** *land*^ uses does not exceed nitrogen leaching rates based on the *natural capital** of each *LUC** class of *land*^ used for *dairy farming**, and (d) ensure that dairy cattle are excluded from surface *water*^ as far as reasonably practicable.	*discharges*^ of *contaminants*^ into *water*^ or onto or into *land*^, the opportunity to utilise alternative *discharge*^ options, or a mix of *discharge*^ regimes, for the purpose of mitigating adverse *effects*^ applying the best practicable option, must be considered, including but not limited to: (a) discharging *contaminants*^ onto or into *land*^ as an alternative to discharging *contaminants*^ into *water*^, (b) withholding from discharging *contaminants*^ into surface *water*^ at times of low flow, and (c) adopting different treatment and *discharge*^ options for different receiving *environments*^ or at different times (including different flow regimes or levels in surface *water bodies*^).	*discharges*^ of *contaminants*^ into *water*^ or onto or into *land*^, the opportunity to utilise alternative *discharge*^ options, or a mix of *discharge*^ regimes, for the purpose of mitigating adverse *effects*^ and applying the best practicable option, must be considered, including but not limited to: (a) discharging *contaminants*^ onto or into *land*^ as an alternative to discharging *contaminants*^ into *water*^, (b) withholding from discharging *contaminants*^ into surface *water*^ at times of low flow, and (c) adopting different treatment and *discharge*^ options for different receiving *environments*^ or at different times (including different flow regimes or levels in surface *water bodies*^). **Policy 13-2C: Management of new and existing *dairy farming* land*^ uses** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *dairy farming** as a *land*^ use, the Regional Council must: (a) give effect to Policy 6-7. (b) seek to exclude cattle and deer from the following waterbodies within the *water management sub-zones** listed in Table 13.1: (i) a wetland or lake that is a rare habitat*, threatened habitat* or at risk habitat*. (ii) a river that is permanently flowing, or is intermittently flowing with an active *bed** width greater than 1 metre (when measured as an average across the property) at any time the bed contains water. For the purposes of this policy "exclude" means stock access must be restricted to the *waterbody** by any permanent or temporary fence or barrier or any natural barrier. Where there are more than 1350 stock movements per week across a river identified in (b)(ii) then a culvert or bridge shall be installed. Existing Dairy Farming* *land*^ uses (a) ensure that nitrogen leaching from existing *dairy farming** *land*^ uses does not exceed nitrogen leaching rates for each *LUC** class of *land*^ as set out in Table 13.2. Where achievement of the Table 13.2 nitrogen leaching rate maximum is not immediately possible then: (i) the nitrogen leaching loss from the farm must be based on the actual demonstrated nitrogen leaching loss for the 2011 year;	**Policy 13-2C: Management of *intensive farming* land*^ uses** In order to give effect to Policy 6-X and Policy 6-7, land use activities affecting groundwater and surface water quality must be managed in the following manner: (a) The following land uses have been identified as intensive farming land uses: (i) Dairy farming* (ii) Commercial vegetable production* (iii) Cropping* (iv) Intensive sheep and beef farming* (b) The intensive farming land uses identified in (a) must be regulated where: (i) They are existing (established prior to this plan becoming operative) land uses, in the targeted water management sub-zones identified in Table 13.1 (ii) They are new (established after this plan becomes operative) land uses, in all water management sub-zones in the Region (c) Nitrogen leaching maximums have

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groundwater quality and discharges (b) where the discharge may enter water or have an adverse effect on water quality, the degree of compliance with the approach for managing surface water quality set out in Chapter 6 (c) avoiding as far as practicable any adverse effects on any sensitive receiving environment or potentially incompatible land uses, in particular any houses, schools, churches, marae, public areas, wetlands, surface waterbodies, and the coastal marine area (d) the appropriateness of adopting the best practicable option to prevent or minimise adverse effects in circumstances where: (i) it is difficult to establish discharge standards for a particular discharge that recognise and provide for the management approaches for water quality and discharges set out in Chapter 6 (ii) the likely adverse effects are minor, and the costs associated with adopting the best practicable option are small in comparison to the costs of investigating the likely effects on land and water (e) avoiding discharges which contain any persistent contaminants that are likely to accumulate in the soil or groundwater (f) the objectives and policies of Chapters 3, 4, 7, 10 and 11 to the extent that they are relevant to the discharge.	(b) where the *discharge*^ may enter surface *water*^ or have an adverse *effect*^ on surface *water*^ quality, the degree of compliance with the approach for managing surface *water*^ quality set out in Chapter 6, (c) avoiding as far as reasonably practicable any adverse *effects*^ on any sensitive receiving *environment*^ or potentially incompatible *land*^ uses, in particular any residential buildings, educational facilities, churches, marae, public areas, *infrastructure*^ and other physical resources of regional or national importance identified in Policy 3-1, *wetlands*^, surface *water bodies*^ and the *coastal marine area*^, (d) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where: (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 6, (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, (e) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in the soil or groundwater, and (f) the objectives and policies of Chapters 3, 4, 7, 10 and 11A to the extent that they are relevant to the *discharge*^.		(b) where the *discharge*^ may enter surface *water*^ or have an adverse *effect*^ on surface *water*^ quality, the degree of compliance with the approach for managing surface *water*^ quality set out in Chapter 6, (c) avoiding as far as reasonably practicable any adverse *effects*^ on any sensitive receiving *environment*^ or potentially incompatible *land*^ uses, in particular any residential buildings, educational facilities, churches, marae, public areas, *infrastructure*^ and other physical resources of regional or national importance identified in Policy 3-1, *wetlands*^, surface *water bodies*^ and the *coastal marine area*^, (d) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where: (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 6, (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, (e) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in the soil or groundwater, and (f) the objectives and policies of Chapters 3, 4, 7, 10 and 11A to the extent that they are relevant to the *discharge*^.	
	Policy 13-2A Industry-based standards The Regional Council will examine relevant industry-based standards (including guidelines and codes of practice), and may accept compliance with those standards as being adequate to avoid, remedy or mitigate adverse *effects*^ to the extent that those standards address the matters in Policies 13-1 and 13-2.	**Policy 13-2A: Industry-based standards** The Regional Council will examine on an on-going basis relevant industry-based standards (including guidelines and codes of practice), recognising that such industry based standards generally represent current best practice, and may accept compliance with those standards as being adequate to avoid, remedy or mitigate adverse *effects*^ to the extent that those standards address the matters in Policies 13-1, 13-2,–13-2B and 13-2C.	**Policy 13-2A: Industry-based standards** The Regional Council will examine on an on-going basis relevant industry-based standards (including guidelines and codes of practice), recognising that such industry based standards generally represent current best practice, and may accept compliance with those standards as being adequate to avoid, remedy or mitigate adverse *effects*^ to the extent that those standards address the matters in Policies 13-1, 13-2,–13-2B and 13-2C.	
	Policy 13-2B: Options for *discharges*^ to surface *water*^ and *land*^ When applying for consents and making decisions on consent applications for	**Policy 13-2B: Options for *discharges*^ to surface *water*^ and *land*^** When applying for consents and making decisions on consent applications for	**Policy 13-2B: Options for *discharges*^ to surface *water*^ and *land*^** When applying for consents and making decisions on consent applications for	

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	management objectives in Schedule AB, (b) has regard to the objectives and policies of Chapter 6 as they relate to surface *water*^ and groundwater quality, and (c) where a *discharge*^ is onto or into *land*^, avoids, remedies or mitigates adverse *effects*^ on surface *water*^ or groundwater.	water and advances the achievement of the Values and management objectives in Schedule AB, (b) provides for the objectives and policies of Chapter 6 as they relate to surface *water*^ and groundwater quality, and (c) where a *discharge*^ is onto or into *land*^, avoids, remedies or mitigates adverse *effects*^ on surface *water*^ or groundwater.	water and advances the achievement of the Values and management objectives in Schedule AB, (b) provides for the objectives and policies of Chapter 6 as they relate to surface *water*^ and groundwater quality, and (c) where a *discharge*^ is onto or into *land*^, avoids, remedies or mitigates adverse *effects*^ on surface *water*^ or groundwater.	
Policy 13-1: Consent decision making for discharges to water When making decisions on resource consent applications, and setting consent conditions, for discharges of water or contaminants into water the Regional Council will have particular regard to: (a) the objectives and policies of Chapter 6 regarding the values of waterbodies and the management of surface water quality and discharges (b) avoiding discharges which contain any persistent contaminants that are likely to accumulate in a waterbody (c) the appropriateness of adopting the best practicable option to prevent or minimise adverse effects in circumstances where: (i) it is difficult to establish discharge standards for a particular discharge that recognise and provide for the management approaches for water quality and discharges set out in Chapter 6 (ii) the likely adverse effects are minor, and the costs associated with adopting the best practicable option are small in comparison to the costs of investigating the likely effects on land and water (d) the objectives and policies of Chapters 3, 4, 7, 9, 10 and 11 to the extent that they are relevant to the discharge.	**Policy 13-1: Consent decision-making for *discharges*^ to *water*^** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *water*^ or *contaminants*^ into *water*^, the Regional Council must have regard to: (a) the objectives and policies of Chapter 6 regarding the Schedule AB Values and the *water*^ quality targets in Schedule D, (b) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in a *water body*^ or its *bed*^, (c) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where: (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 6, or (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, and (d) the objectives and policies of Chapters 3, 4, 7, 10 and 11A to the extent that they are relevant to the *discharge*^.	**Policy 13-1: Consent decision-making for *discharges*^ to *water*^** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *water*^ or *contaminants*^ into *water*^, the Regional Council must specifically consider: (a) the objectives and policies of Chapter 6 and have regard to (b) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in a *water body*^ or its *bed*^, (c) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where: (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 6, or (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, and (d) the objectives and policies of Chapters 3, 4, 7, 10 and 11A to the extent that they are relevant to the *discharge*^.	**Policy 13-1: Consent decision-making for *discharges*^ to *water*^** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *water*^ or *contaminants*^ into *water*^, the Regional Council must specifically consider: (a) the objectives and policies 6-1 to 6-5 and 6-8 of Chapter 6, And have regard to: (b) avoiding *discharges*^ which contain any persistent *contaminants*^ that are likely to accumulate in a *water body*^ or its *bed*^, (c) the appropriateness of adopting the *best practicable option*^ to prevent or minimise adverse *effects*^ in circumstances where: (i) it is difficult to establish *discharge*^ parameters for a particular *discharge*^ that give effect to the management approaches for *water*^ quality and *discharges*^ set out in Chapter 6, or (ii) the potential adverse *effects*^ are likely to be minor, and the costs associated with adopting the *best practicable option*^ are small in comparison to the costs of investigating the likely *effects*^ on *land*^ and *water*^, and (d) the objectives and policies of Chapters 3, 4, 7, 10 and 11A to the extent that they are relevant to the *discharge*^.	
Policy 13-2: Consent decision making for discharges to land When making decisions on resource consent applications, and setting consent conditions, for discharges of contaminants onto or into land the regional council will have particular regard to: (a) the objectives and policies of Chapter 6 regarding the management of	**Policy 13-2: Consent decision-making for *discharges*^ to *land*^** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *contaminants*^ onto or into *land*^ the Regional Council must have regard to: (a) the objectives and policies of Chapter 6 regarding the management of groundwater quality and *discharges*^,		**Policy 13-2: Consent decision-making for *discharges*^ to *land*^** When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges*^ of *contaminants*^ onto or into *land*^ the Regional Council must have regard to: (a) the objectives and policies of Chapter 6 regarding the management of groundwater quality and *discharges*^,	

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			where they exist and through amending the cumulative nitrogen leaching maximums by Land Use Capability Class contained in Table 13.2. (d) As additional *land*^ use activities are regulated then the policy framework may include mechanisms to provide for nitrogen trading. **Policy 6-7B: Existing dairy farming* and other rural l*and*^ use activities in *Water Management Sub-zones** not listed in Table 13.1** To advance the achievement of the Schedule AB Values for all *Water Management Sub-Zones** not listed in Table 13.1 through the following: (a) Focus on the following *Water Management Sub-Zones* as priority catchments for monitoring and assessment: (i) Mowhanau (West_3) (ii) Lake Horowhenua (Hoki_1a and Hoki_1b) (iii) Other south-west catchments (Waitarere) (West_7) (iv) Other coastal lakes (West_4 and West_5) (v) Coastal Rangitikei (Rang_4) (vi) Mangawhero/Makotuku (Whau_3b, Whau_3c and Whau_3d) (b) Additional *Water Management Sub-Zones**must be added to Table 13.1 through a change to the One Plan when water quality and land use monitoring within a *Water Management Sub-Zone**demonstrates water quality such that the Schedule D water quality numerics are not met and/or the relevant Schedule AB values are compromised and these changes can reasonably be attributed to specified *land*^ use activities. .	
Regional Plan	***Regional Plan*** **Objective 13-1: Regulation of *discharges*^ to *land*^ and *water*^** The regulation of *discharges*^ onto or into *land*^ (including those that enter *water*^) or directly into *water*^ in a manner that: (a) has regard to the Values and	***Regional Plan*** **Objective 13-1: Management of *discharges*^ to *land*^ and *water*^** The management of *discharges*^ onto or into *land*^ (including those that enter *water*^) or directly into *water*^ in a manner that: (a) safeguards the life supporting capacity of	***Regional Plan*** **Objective 13-1: Management of *discharges*^ to *land*^ and *water*^** The management of *discharges*^ onto or into *land*^ (including those that enter *water*^) or directly into *water*^ in a manner that: (a) Safeguards the life supporting capacity of	

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			water^ from other entry points (eg., race run-off) (3) establish programmes for implementing any required changes to advance the achievement of the Schedule AB Values in the water quality numeric for the Water Management Zone in Schedule D no later than the first ten year anniversary of the relevant common catchment expiry date in Table 11A.1 (c) **Sediment** (i) In those *Water Management Sub-zones** where agricultural *land*^ use activities are the predominant cause of elevated sediment levels in surface *water*^, the Regional Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion**, as described in Chapter 5. **Policy 6-7A: Rural *land*^ use activities (other than dairying) affecting groundwater and surface *water*^ quality in Water Management *Sub-zones** listed in Table 13.1** *Rural land*^ use activities (other than dairy) affecting groundwater and surface *water*^ quality in the Water Management *Sub-zones** listed in Table 13.1 shall be managed in the following manner: (a) The management of water quality within the Water Management *Sub-zones** listed in Table 13.1 must acknowledge that all rural *land*^ use activities (other than dairying) have the potential to affect water quality. (b) Rural land use activities other than dairying that make a significant contribution to problem nutrient levels in surface water bodies must be actively managed, including through regulation. (c) The adequacy of the approach taken in the One Plan must be reviewed as further monitoring data is available and no later than 30 June 2017, to enable assessment of progress towards achieving the water quality numerics in Schedule D. Where necessary regulatory control will be extended over all rural *land*^ use activities including through requiring compliance with relevant industry standards and codes	Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion**, as described in Chapter 5.

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nutrient management plan for the purposes of: (1) establishing the measures required to achieve the target contaminant loading rates for the relevant water management zone*, as specified in Schedule D (2) identifying best management practices (3) establishing programmes for implementing any required changes. (b) **Faecal contamination** (i) Intensive farming land-use activities shall be regulated in targeted water management zones*. (ii) For the purposes of subsection (b)(i), targeted water management zones* shall be those zones where, collectively, intensive farming land-use activities are causing elevated faecal contamination levels. (iii) Those persons carrying out intensive farming land-use activities in the water management zones* targeted in subsection (b)(i) shall be required, amongst other things, to (1) prevent stock access to waterbodies (2) mitigate against faecal contamination from other entry points (eg., race run-off) (3) establish programmes for implementing any required changes. (c) **Sediment** (i) In those water management zones* where agricultural land-use activities are the predominant cause of elevated sediment levels, non-regulatory whole farm business plans* shall be prepared and implemented for the purpose of reducing soil erosion, as described in Chapter 5.	their beds^ and the provision of dairy cattle crossings over some rivers^. (ii) For the purposes of (a)(i), specified Water Management Subzones* are those Sub-zones* listed in Table 13.1 where, collectively, dairy farming* land^ use activities are significant contributors to elevated nutrient levels in groundwater or surface water^. (b) **Faecal contamination** (iii) Those persons carrying out existing dairy farming* land^ use activities in the Water Management Sub-zones* listed in Table 13.1 or new conversions to dairy farming* anywhere in the Region must be required, amongst other things, to (1) prevent dairy cattle access to some surface water bodies^ and their beds^ (2) mitigate faecal contamination of surface water^ from other entry points (eg., race run-off) (3) establish programmes for implementing any required changes. (c) **Sediment** (i) In those *Water Management Sub-zones** where agricultural *land^* use activities are the predominant cause of elevated sediment levels in surface *water^*, the Regional Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion**, as described in Chapter 5.		(B) Providing a three year step down approach to meet the nitrogen leaching rate for each LUC class of land. In year one the annual average nitrogen leaching loss from the dairy farm must be based on the nutrient loss in year 2011. In year two there must be either a 33% reduction in the difference between the loss limit set in year one and the nitrogen leaching maximum set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. In year three there must be a further 33% reduction from the loss limit set for year one and the nitrogen leaching maximum set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. With achievement of the nitrogen leaching rate for each LUC class of land by year four. (C) excluding cattle and deer from some surface water bodies and their beds, and (D) the requirement for dairy cattle crossings over some rivers. (ia) New dairy farming* land^ use activities must be regulated throughout the Region so as not to exceed nitrogen leaching rates based on the natural capital* of each LUC* class of land^, and to achieve nutrient management planning, the exclusion of dairy cattle from some surface water bodies^ and their beds^ and the provision of dairy cattle crossings over some rivers^. (ii) For the purposes of (a)(i), specified Water Management Subzones* are those Sub-zones* listed in Table 13.1 where, collectively, dairy farming* land^ use activities are significant contributors to elevated nutrient levels in groundwater or surface water^. (iii) Existing and new dairy farming land use activities shall manage nitrogen leaching rates in order to advance the achievement of the Schedule AB Values in the water quality numeric for the Water Management Zone in Schedule D no later that [sic] the first ten year anniversary of the relevant common catchment expiry date in Table 11A.1. (b) **Faecal contamination** (iii) Those persons carrying out existing dairy farming* land^ use activities in the Water Management Sub-zones* listed in Table 13.1 or new conversions to dairy farming* anywhere in the Region must be required, amongst other things, to (1) prevent dairy cattle access to some surface water bodies^ and their beds^ (2) mitigate faecal contamination of surface	and the strategy for groundwater quality in Policy 6-6 iii. Recognize the productive capability of land in the water management sub-zone and iv. Are achievable on most farms using currently available best management practices and v. Provide for appropriate timeframes for achievement where large changes to farm management practices or high levels of investment are required to achieve the nitrogen leaching maximums (ii) Existing *intensive farming** *land^* use activities must be regulated in targeted *Water Management Sub-zones** to achieve the nitrogen leaching maximums specified in (i) (ia) New *intensive farming** *land^* use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (i) (b) **Faecal contamination** (v) Those persons carrying out existing *intensive farming** *land^* use activities in the targeted *Water Management Sub-zones** or new conversions to *intensive farming** land use activities_anywhere in the Region must be required, amongst other things, to (a) prevent cattle access to some surface *water bodies^* and their *beds^* (b) mitigate faecal contamination of surface *water^* from other entry points (eg., race run-off) (c) establish programmes for implementing any required changes. (c) **Sediment** (ii) In those *Water Management Sub-zones** where agricultural *land^* use activities are the predominant cause of elevated sediment levels in surface *water^*, the Regional

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information exists. (b) For the avoidance of doubt, subsection (a) applies: (i) in circumstances where there is insufficient data to enable a comparison of the existing water quality with any of the water quality standards for a water management zone* (in which case subsection (a) applies to every water quality standard for the zone) (ii) in circumstances where there is insufficient data to enable a comparison of the existing water quality with all of the water quality standards for a water management zone* (in which case subsection (a) applies only to those standards with insufficient data).	*Sub-zones**, where such information exists. (b) For the avoidance of doubt: (i) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with all of the water^ quality targets for a Water Management Sub-zone* (a) applies to every water^ quality target for the Sub-zone* (ii) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with some of the water^ quality targets for a Water Management Sub-zone* (a) applies only to those targets with insufficient data.	(b) For the avoidance of doubt: (i) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with all of the water^ quality numerics for a Water Management Sub-zone* (a) applies to every water^ quality numerics for the Sub-zone* (ii) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with some of the water^ quality numerics for a Water Management Sub-zone* (a) applies only to those numerics with insufficient data.	exists. (b) For the avoidance of doubt: (i) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with all of the water^ quality numerics for a Water Management Sub-zone* (a) applies to every water^ quality numerics for the Sub-zone* (ii) in circumstances where there is insufficient data to enable a comparison of the existing water^ quality with some of the water^ quality numerics for a Water Management Sub-zone* (a) applies only to those numerics with insufficient data.	*Management Sub-zones** are those subzones where, collectively, *land^* use activities are significant contributors to elevated contaminant levels in groundwater or surface *water^*. (b) Identifying in the regional plan intensive farming land use activities. Intensive land use activities are rural land use activities that (either individually or collectively) make a significant contribution to elevated contaminant levels in the targeted water management sub-zones identified in (a) above. (c) Actively managing, the intensive farming land use activities identified in (b) including through regulation in the regional plan, in the manner specified in Policy 6-7 (d) The Regional Council must continue to monitor ground and surface water quality in water management sub-zones not identified in (a) and rural land uses not identified in (b). Where monitoring shows the thresholds in (a) and (b) are met then the regional plan must be amended so that those further water management sub-zones and rural land uses are included in the management regime set out in (c)
Policy 6-6: Maintenance of groundwater quality (a) Discharges and land-use activities shall be managed in a manner which maintains the existing groundwater quality. (b) Groundwater takes in the vicinity of the coast shall be managed in a manner which avoids saltwater intrusion.	**Policy 6-6: Maintenance of groundwater quality** (a) *Discharges^* and *land^* use activities must be managed in a manner which maintains the existing groundwater quality, or enhances it where it is degraded. (aa) An exception may be made under (a) where a *discharge^* onto or into *land^* better meets the purpose of the RMA than a *discharge^* to *water^*, provided that the *best practicable option^* is adopted for the treatment and *discharge^* system. (b) Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion.	**Policy 6-6: Maintenance of groundwater quality** (a) *Discharges^* and *land^* use activities must be managed in a manner which maintains the existing groundwater quality, where groundwater quality is degraded / over allocated as a result of human activity, it is enhanced. (aa) An exception may be made under (a) where a *discharge^* onto or into *land^* better meets the purpose of the RMA than a *discharge^* to *water^*, provided that the *best practicable option^* is adopted for the treatment and *discharge^* system. (b) Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion.	**Policy 6-6: Maintenance of groundwater quality** (a) *Discharges^* and *land^* use activities must be managed in a manner which maintains the existing groundwater quality, where groundwater quality is degraded / over allocated as a result of human activity, it is enhanced. (aa) An exception may be made under (a) where a *discharge^* onto or into *land^* better meets the purpose of the RMA than a *discharge^* to *water^*, provided that the *best practicable option^* is adopted for the treatment and *discharge^* system. (b) Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion.	
Policy 6-7: Land-use activities affecting surface water quality (a) **Nutrients** (i) Intensive farming land-use activities shall be regulated in targeted water management zones*. (ii) For the purposes of subsection (a)(i), targeted water management zones* shall be those zones where, collectively, intensive farming land-use activities are the predominant cause of elevated nutrient levels. (iii) Those persons carrying out intensive farming land-use activities in the water management zones* targeted in subsection (a)(i) shall be required, amongst other things, to prepare a	**Policy 6-7: Land^ use activities affecting groundwater and surface water^ quality** (a) **Nutrients** (i) Existing dairy farming* land^ use activities must be regulated in specified Water Management Sub-zones* to achieve nutrient management planning, the exclusion of dairy cattle from some surface water bodies^ and their beds^ and the provision of dairy cattle crossings over some rivers^. (ia) New dairy farming* land^ use activities must be regulated throughout the Region so as not to exceed nitrogen leaching rates based on the natural capital* of each LUC* class of land^, and to achieve nutrient management planning, the exclusion of dairy cattle from some surface water bodies^ and		**Policy 6-7Dairy farming activities affecting groundwater and surface water^ quality** The management of dairy farming land use activities affecting surface water must give effect to the strategy for surface water quality set out in Policies 6-2, 6-3, 6-4 and 6-5, and the strategy for groundwater quality in Policy 6-6, and by managing diffuse discharges of contaminants in the following manner: (a) **Nutrients** (i) Existing dairy farming* land^ use activities must be regulated in specified Water Management Sub-zones* to achieve nutrient management planning by: (A) Setting nitrogen leaching rates for each LUC class of land which must not be exceeded except as provided for in (B)	**Policy 6-7: Management of *Land^* use activities affecting groundwater and surface *water^* quality** (a) **Nutrients** (i) Nitrogen leaching maximums must be established in the regional plan which: i. Take into account all the non-point sources of nitrogen in the catchment and ii. Will achieve the strategies for surface water quality and result in a maintenance of water quality water quality set out in Policies 6-2, 6-3, 6-4 and 6-5,

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applies only to those standards met).		(iii) for the purposes of (a) reasonable mixing is only applicable to a discharge from an identifiable location.	(iii) for the purpose of (a) reasonable mixing is only applicable to a discharge from an identifiable location.	
Policy 6-4: Enhancement where water quality standards are not met (a) In each case where the existing water quality does not meet the relevant water quality standard within a water management zone*, as shown in Schedule D, activities shall be managed in a manner which enhances water quality in order to meet the water quality standard for the water management zone* shown in Schedule D. (b) For the avoidance of doubt, subsection (a) applies: (i) in circumstances where the existing water quality of a water management zone* does not meet any of the water quality standards for the zone (in which case subsection (a) applies to every water quality standard for the zone) (ii) in circumstances where the existing water quality of a water management zone* does not meet all of the water quality standards for the zone (in which case subsection (a) applies only to those standards not met).	**Policy 6-4: Enhancement where water^ quality targets are not met** (a) In each case where the existing water^ quality does not meet the relevant Schedule D water^ quality targets within a Water Management Sub-zone*, activities must be managed in a manner which, beyond the zone of reasonable mixing: (i) enhances existing water^ quality where that is reasonably practicable, or otherwise maintains it, and (ii) has regard to the likely effect^ of the activity on the relevant Schedule AB Value that the water^ quality target is designed to safeguard. (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet all of the water^ quality targets for the Sub-zone*, (a) applies to every water^ quality target for the Sub-zone (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet some of the water^ quality targets for the Sub-zone*, (a) applies only to those targets not met.	**Policy 6-4: Enhancement where water^ quality numerics are not met** (a Where the existing water^ quality does not meet the relevant Schedule D water^ quality numerics within a Water Management Sub-zone*, water quality within the sub-zone must be managed in a manner that enhances existing water quality in order to meet (in a manner that is consistent with Policies 6-7 and 6-8): (ii) the water quality numeric for the Water Management Zone in Schedule D; and/or (iii) the relevant Schedule AB values and management objectives that the water quality numeric is designed to safeguard. (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet all of the water^ quality numerics for the Sub-zone*, (a) applies to every water^ quality numeric for the Sub-zone (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet some of the water^ quality numerics for the Sub-zone*, (a) applies only to those numerics not met.	**Policy 6-4: Enhancement where water^ quality numerics are not met** (a) Where the existing water^ quality does not meet the relevant Schedule D water^ quality numerics within a Water Management Sub-zone*, water quality within the sub-zone must be managed in a manner that enhances existing water quality in order to meet (in a manner that is consistent with Policies 6-7, 6-7A, 6-7B and 6-8): (i) the water quality numeric for the Water Management Zone in Schedule D; and / or (iia) the relevant Schedule AB Values and management objectives that the water quality numeric is designed to safeguard. (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet all of the water^ quality numerics for the Sub-zone*, (a) applies to every water^ quality numeric for the Sub-zone (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* does not meet some of the water^ quality targets [sic] for the Sub-zone*, (a) applies only to those targets [sic] not met.	
Policy 6-5: Management of activities in areas where existing water quality is unknown (a) In each case where there is insufficient data to enable a comparison of the existing water quality with the relevant water quality standard as shown in Schedule D, activities shall be managed in a manner which: (i) maintains or improves the existing water quality (ii) has regard to the likely effect of the activity on the values identified for the relevant water management zone* (iii) has regard to relevant information about the existing water quality in upstream or downstream water management zones*, where such	**Policy 6-5: Management of activities in areas where existing *water^* quality is unknown** (a) In each case where there is insufficient data to enable a comparison of the existing *water^* quality with the relevant Schedule D *water^* quality targets, activities must be managed in a manner which, beyond the zone of reasonable mixing: (i) maintains or enhances the existing *water^* quality (ii) has regard to the likely effect of the activity on the relevant Schedule AB Values that the *water^* quality target is designed to safeguard (iii) has regard to relevant information about the existing *water^* quality in upstream or downstream *Water Management*	**Policy 6-5: Management of water quality in areas where existing *water^* quality is unknown** (a) Where there is insufficient data to enable a comparison of the existing *water^* quality with the relevant Schedule D *water^* quality numerics, water quality within the Water Management Sub-Zone must be managed in a manner which: (i) maintains or enhances the existing *water^* quality (ii) has regard to the likely effect of the activity on the relevant Schedule AB Values that the *water^* quality numeric is designed to safeguard (iii) has regard to relevant information about the existing *water^* quality in upstream or downstream *Water Management Sub-zones**, where such information exists.	**Policy 6-5: Management of water quality in areas where existing *water^* quality is unknown** (a) Where there is insufficient data to enable a comparison of the existing *water^* quality with the relevant Schedule D *water^* quality numerics, water quality within the Water Management Sub-Zone must be managed in a manner which: (i) maintains or enhances the existing *water^* quality (ii) has regard to the likely effect of the activity on the relevant Schedule AB Values that the *water^* quality numeric is designed to safeguard (iii) has regard to relevant information about the existing *water^* quality in upstream or downstream *Water Management Sub-zones**, where such information	**New Policy 6-X: *Land^* use activities affecting groundwater and surface *water^* quality** The management of land use activities affecting groundwater and surface water must give effect to the strategy for surface water quality set out in Policies 6-2, 6-3, 6-4 and 6-5, and the strategy for groundwater quality in Policy 6-6, by managing diffuse discharges of contaminants in the following manner: (a) identifying in the regional plan targeted *Water Management Sub-zones**. Targeted *Water*

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	*Management Zones** and *Water Management Sub-zones** throughout the Region (and particularly those with good head and flow available) may have potential for hydroelectricity generation. Further *site**-specific assessment will be needed to establish the locations where such potential may be realised while having regard to the Schedule AB Values of the relevant *water bodies*^ and their *beds*^.	The individual Values and their associated management objectives are set out in the Schedule AB Surface Water Management Values Key and repeated in Table 6.2.	Territorial Authorities. The individual Values and their associated management objectives are set out in the Schedule AB Surface Water Management Values Key and repeated in Table 6.2. [note that not all parties agreed to this wording] *Water Management Zones** and *Water Management Sub-zones** throughout the Region (and particularly those with good head and flow available) may have potential for hydroelectricity generation. Further *site**-specific assessment will be needed to establish the locations where such potential may be realised while having regard to the Schedule AB Values of the relevant *water bodies*^ and their *beds*^.	
Policy 6-2: Water quality standards Water quality standards relating to the values described in Policy 6-1 have been developed for each water management zone*, as shown in Schedule D. The water quality standards in Schedule D shall be used for the management of surface water quality in the manner set out in Policies 6-3, 6-4 and 6-5.	**Policy 6-2: Water^ quality targets** In Schedule D, water^ quality targets relating to the Schedule AB Values (repeated in Table 6.2) are identified for each Water Management Sub-Zone*. Other than where they are incorporated into permitted activity^ rules as conditions^ to be met, the water^ quality targets in Schedule D must be used to inform the management of surface *water*^ quality in the manner set out in Policies 6-3, 6-4 and 6-5.	**Policy 6-2: Water^ quality numerics** In Schedule D, water^ quality numerics relating to the Schedule AB Values (repeated in Table 6.2) are identified for each Water Management Sub-Zone*. Other than where they are incorporated into permitted activity^ rules as conditions^ to be met, the water^ quality numerics in Schedule D must be used to inform the management of surface *water*^ quality in the manner set out in Policies 6-3, 6-4 and 6-5.	**Policy 6-2: Water^ quality numerics** In Schedule D, water^ quality numerics relating to the Schedule AB Values (repeated in Table 6.2) are identified for each Water Management Sub-Zone*. Other than where they are incorporated into permitted activity^ rules as conditions^ to be met, the water^ quality numerics in Schedule D must be used to inform the management of surface *water*^ quality in the manner set out in Policies 6-3, 6-4 and 6-5.	
Policy 6-3: Ongoing compliance where water quality standards are met (a) In each case where the existing water quality meets the relevant water quality standard within a water management zone*, as shown in Schedule D, activities shall be managed in a manner which ensures that the water quality standard continues to be met. (b) For the avoidance of doubt, subsection (a) applies: (i) in circumstances where the existing water quality of a water management zone* meets all of the water quality standards for the zone (in which case subsection (a) applies to every water quality standard for the zone) (ii) in circumstances where the existing water quality of a water management zone* meets some of the water quality standards for the zone (in which case subsection (a)	**Policy 6-3: Ongoing compliance where water^ quality targets are met** (a) In each case where the existing water^ quality meets the relevant Schedule D water^ quality targets within a Water Management Sub-zone*, activities must be managed in a manner which ensures that the water^ quality targets continue to be met beyond the zone of reasonable mixing. (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets all of the water^ quality targets for the Sub-zone* (a) applies to every water^ quality target for the Sub-zone* (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets some of the water^ quality targets for the Sub-zone* (a) applies only to those targets met.	**Policy 6-3: Ongoing compliance where water^ quality numerics are met** (a) Where the existing water^ quality meets the relevant Schedule D water^ quality numerics within a Water Management Sub-zone*, water quality must be managed in a manner which ensures that the water^ quality numerics continues to be met beyond the zone of reasonable mixing (where mixing is applicable). (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets all of the water^ quality numerics for the Sub-zone* (a) applies to every water^ quality numerics for the Sub-zone* (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets some of the water^ quality numerics for the Sub-zone* (a) applies only to those numerics that are met.	**Policy 6-3: Ongoing compliance where water^ quality numerics are met** (a) Where the existing water^ quality meets the relevant Schedule D water^ quality numerics within a Water Management Sub-zone*, water quality must be managed in a manner which ensures that the water^ quality numeric continues to be met beyond the zone of reasonable mixing (where mixing is applicable). (b) For the avoidance of doubt: (i) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets all of the water^ quality numerics for the Sub-zone* (a) applies to every water^ quality numerics for the Sub-zone* (ii) in circumstances where the existing water^ quality of a Water Management Sub-zone* meets some of the water^ quality numerics for the Sub-zone* (a) applies only to those numeric that are met.	

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Objective 6-1: Water management values Surface waterbodies are managed in a manner which sustains their life-supporting capacity and recognises and provides for the values set out in Schedule D.	**Objective 6-1: *Water*^ management Values** Surface *water bodies*^ and their *beds*^ are managed in a manner which has regard to the Values in Schedule AB.	**Objective 6-1: Water management Values** Surface water bodies and their beds are managed in a manner which safeguards their life supporting capacity and advances the achievement of the Values in Schedule AB.	**Objective 6-1: *Water*^ management Values** Surface *water bodies*^ and their *beds*^ are managed in a manner which safeguards their life supporting capacity and advances the achievement of the Values in Schedule AB.	
Objective 6-2: Water quality (a) Surface water quality is managed to ensure that: (i) water quality is maintained in those rivers where the existing water quality is sufficient to support the values of the river (ii) water quality is enhanced in those rivers where the existing water quality is not sufficient to support the values of the river (iii) accelerated eutrophication or sedimentation of lakes in the Region is prevented or minimised (iv) the special values of rivers protected by water conservation orders and local water conservation notices are maintained. (b) Groundwater quality is managed to ensure that the existing groundwater quality is maintained.	**Objective 6-2: Water^ quality** (a) Surface water^ quality is managed to ensure that: (i) water^ quality is maintained in those rivers^ and lakes^ where the existing water^ quality is at a level sufficient to support the Values in Schedule AB (ii) water^ quality is enhanced in those rivers^ and lakes^ where the existing water^ quality is not at a level sufficient to support the Values in Schedule AB (iii) accelerated eutrophication and sedimentation of lakes^ in the Region is prevented or minimised (iv) the special values of rivers^ protected by water conservation orders^ are maintained. (b) Groundwater quality is managed to ensure that existing groundwater quality is maintained, or enhanced where it is degraded.	**Objective 6-2: Water^ quality** (a) Surface water^ quality is managed to ensure that: (i) water^ quality is maintained in those rivers^ and lakes^ where the existing water^ quality is at a level sufficient to support the Values in Schedule AB (ii) water^ quality is enhanced in those rivers^ and lakes^ where the existing water^ quality is not at a level sufficient to support the Values in Schedule AB (iii) accelerated eutrophication and sedimentation of lakes^ in the Region is prevented or minimised (iv) the special values of rivers^ protected by water conservation orders^ are maintained. (b) Groundwater quality is managed to ensure that existing groundwater quality is maintained, or where it is degraded / over-allocated as a result of human activity, groundwater quality is enhanced.	**Objective 6-2: Water^ quality** (a) Surface water^ quality is managed to ensure that: (i) water^ quality is maintained in those rivers^ and lakes^ where the existing water^ quality is at a level sufficient to support the Values in Schedule AB (ii) water^ quality is enhanced in those rivers^ and lakes^ where the existing water^ quality is not at a level sufficient to support the Values in Schedule AB (iii) accelerated eutrophication and sedimentation of lakes^ in the Region is prevented or minimised (iv) the special values of rivers^ protected by water conservation orders^ are maintained. (b) Groundwater quality is managed to ensure that existing groundwater quality is maintained, or where it is degraded / over-allocated as a result of human activity, groundwater quality is enhanced.	
Policy 6-1: Water management zones and values For the purposes of managing water quality, water quantity, and activities in the beds of rivers and lakes, the rivers and lakes in the Manawatu-Wanganui Region have been divided into the water management zones* shown in Schedule D. The rivers and lakes shall be managed in a manner which recognises and provides for the values identified in Schedule D for each water management zone*. The values and their associated purposes are set out in Table 6.2.	**Policy 6-1: *Water Management Zones**** **and Values** For the purposes of managing *water*^ quality, *water*^ quantity, and activities in the *beds*^ of *rivers*^ and *lakes*^, the catchments in the Region have been divided into *Water Management Zones** and *Water Management Sub-zones** in Schedule AA.2 Groundwater has been divided into *Groundwater Management Zones** in Schedule C.3 The *rivers*^ and *lakes*^ and their *beds*^ must be managed in a manner which has regard to the Schedule AB Values when decisions are made on avoiding, remedying or mitigating the adverse *effects*^ of activities. The individual Values and their associated management objectives are set out in the Schedule AB Surface Water Management Values Key and repeated in Table 6.2. *Water*	**Policy 6-1: *Water Management Zones**** **and Values** For the purposes of managing *water*^ quality, *water*^ quantity, and activities in the *beds*^ of *rivers*^ and *lakes*^, the catchments in the Region have been divided into *Water Management Zones** and *Water Management Sub-zones** in Schedule AA.2 Groundwater has been divided into *Groundwater Management Zones** in Schedule C.3 The *rivers*^ and *lakes*^ and their *beds*^ must be managed in a manner which safeguards their life supporting capacity and advances the achievement of the Schedule AB Values when decisions are made on avoiding, remedying or mitigating the adverse *effects*^ of activities or in relation to any other function under the Resource Management Act 1991 exercised by the Regional Council or Territorial Authorities.	**Policy 6-1: *Water Management Zones**** **and Values** For the purposes of managing *water*^ quality, *water*^ quantity, and activities in the *beds*^ of *rivers*^ and *lakes*^, the catchments in the Region have been divided into *Water Management Zones** and *Water Management Sub-zones** in Schedule AA.2 Groundwater has been divided into *Groundwater Management Zones** in Schedule C.3 The *rivers*^ and *lakes*^ and their *beds*^ must be managed in a manner which safeguards their life supporting capacity and advances the achievement of the Schedule AB Values when decisions are made on avoiding, remedying or mitigating the adverse *effects*^ of activities or in relation to any other function exercised by the Regional Council or	

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Catchment	Water Management Zone	Date the rules in the Plan come into force
Mangapapa	Mana_9b	1 April 2009
Mowhanau	West_3	1 April 2009
Mangatainoka	Mana_8a Mana_8b Mana_8c Mana_8d Mana_8e	1 April 2010
Upper Manawatu above Hopelands	Mana_1a Mana_1b Mana_1c Mana_2a Mana_2b Mana_3 Mana_4 Mana_5a Mana_5b Mana_5c Mana_5d Mana_5e	1 April 2011
Lake Horowhenua	Hoki_1a Hoki_1b	1 April 2012
Waikawa	West_9	1 April 2012
Manawatu above gorge	Mana_6 Mana_9a Mana_9c	1 April 2013
Other south-west catchments (Waitarere and Papaitonga)	West_7 West_8	1 April 2013
Other coastal lakes	West_4 West_5 West_6	1 April 2013
Coastal Rangitikei	Rang_4	1 April 2014
Mangawhero/Makotuku	Whau_3b Whau_3c Whau_3d	1 April 2015

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Catchment	Water Management Zone
Mangapapa	Mangapapa Mana_9b
Mangatainoka	Upper Mangatainoka Mana_8a Middle Mangatainoka Mana_8b Lower Mangatainoka Mana_8c Makakahi Mana_8d
Upper Manawatu above Hopelands	Upper Manawatu Mana_1a Mangatewainui Mana_1b Mangatoro Mana_1c Weber-Tamaki Mana_2a Mangatera Mana_2b Upper Tamaki Mana_3 Upper Kumeti Mana_4 Tamaki-Hopelands Mana_5a Lower Tamaki Mana_5b Lower Kumeti Mana_5c Oruakeretaki Mana_5d

	Raparapawai Mana_5e
Waikawa	Waikawa West_9a Waikawa West_9b
Manawatu above gorge	Hopelands-Tiraumea Mana_6 Upper Gorge Mana_9a Mangaatua Mana_9c
Other south-west catchments (Papaitonga)	Lake Papaitonga West_8
Other coastal lakes	Northern Manawatu Lakes West_6

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Catchment	***Water Management Sub-zone****	***Date the rules of the Plan come into force***
Mangapapa	Mangapapa Mana_9b	1 July 2012
Waikawa	Waikawa West_9a Waikawa West_9b	1 July 2012
Other south-west catchments (Papaitonga)	Lake Papaitonga West_8	1 July 2012
Mangatainoka	Upper Mangatainoka Mana_8a Middle Mangatainoka Mana_8b Lower Mangatainoka Mana_8c Makakahi Mana_8d	1 July 2013
Upper Manawatu above Hopelands	Upper Manawatu Mana_1a Mangatewainui Mana_1b Mangatoro Mana_1c Weber-Tamaki Mana_2a Mangatera Mana_2b Upper Tamaki Mana_3 Upper Kumeti Mana_4 Tamaki-Hopelands Mana_5a Lower Tamaki Mana_5b Lower Kumeti Mana_5c Oruakeretaki Mana_5d Raparapawai Mana_5e	1 July 2014
Manawatu above gorge	Hopelands-Tiraumea Mana_6 Upper Gorge Mana_9a Mangaatua Mana_9c	1 July 2014
Other coastal lakes	Northern Manawatu Lakes West_6	1 July 2013

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Table 13.2 sets out the maximum nitrogen leaching/run-off rate allowed for land within the specified land use capability classes after the specified dates. The year 1 date is the date from Table 13.1 for the particular water management zone in which that land class is situated. The following dates in the table are the number of years after the Year 1 date.

Table 13.2 Land Use Capability Nitrogen Leaching/Run-off Values

	LUC1	LUC2	LUC3	LUC4	LUC5	LUC6	LUC7	LUC8
Year 1 (when rule comes into force) (kg of N/ ha/year)	32	29	22	16	13	10	6	2
Year 5 (kg of N/ ha/year)	27	25	21	16	13	10	6	2
Year 10 (kg of N/ ha/year)	26	22	19	14	13	10	6	2
Year 20 (kg of N/ ha/year)	25	21	18	13	12	10	6	2

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Table 13.2 sets out the cumulative nitrogen leaching maximum* for the land^ used for dairy farming* within each specified land use capability class*.

Table 13.2 Cumulative nitrogen leaching maximum* by Land Use Capability Class*

LUC* I	LUC2	LUC3	LUC4	LUC5	LUC6	LUC7	LUC8
30	27	24	18	16	15	8	2

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Table 13.2 *Cumulative nitrogen leaching maximum** by *Land Use Capability Class**

*LUC** I	*LUC** II	*LUC** III	*LUC** IV	*LUC** V	*LUC** VI	*LUC** VII	*LUC** VIII
30	27	24	18	16	15	8	2

Rule	Activity	Classification	Conditions/standards/terms	Control/discretion Non-notification
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13-1 Dairy farming, cropping, market gardening and intensive sheep and beef farming, and associated activities	From the dates specified in Table 13.1, the **existing** use of land in the water management zones specified in Table 13.1 and from the date this rule becomes operative, any **new** use of land, including conversion, in **all** water management zones in the Region for: (a) dairy farming* (b) cropping* (c) market gardening* (d) intensive sheep and beef farming* including any of the following activities associated with the above uses: i. the taking and use of surface water ii. the taking and use of not more than 50 m_3/day/property* of groundwater iii. the discharge of fertiliser* onto land and any consequential discharge of contaminants to air iv. the discharge of contaminants onto land from a. the preparation, storage, use or transportation of stock feed on production land, or b. the use of a feed pad and any consequential discharge of contaminants to air v. the discharge of grade A biosolids* and soil conditioners* onto or into production land, and any consequential discharge of contaminants to air vi. the discharge of contaminants onto or into production land associated with an offal hole or farm dump, and any contaminants into air vii. any discharge of contaminants to land or water from farm animals associated with the land use a. effluent from dairy sheds and ancillary feed pads b. effluent from existing piggeries	**Controlled**	a) The use or activity is undertaken in accordance with a Farmer- Applied Resource Management Strategy (FARM Strategy). (b) The FARM Strategy referred to in (a) shall be prepared to meet the requirements set out in The FARM Strategy Workbook (Horizons Regional Council, April 2007). (c) The FARM Strategy referred to in (a) shall be submitted to the council as part of the resource consent application required by this rule. When calculating the maximum nitrogen leaching/run-off values allowed for the whole farm in accordance with preparing a FARM Strategy as required by (b), the values for each land use capability class (LUC) in Table 13.2 shall be used. If the activity involves the taking of more than 30 m_2 per day of surface water: (d) The taking and use of any surface water shall not be from rivers protected under Rule 15-7 (e) Water shall only be taken when the river is at or above its minimum flow, as assessed in accordance with Schedule B (f) The amount of water taken, when assessed in combination with all other water takes within the same water management zone, shall not exceed the relevant core allocation set out for that water management zone in Schedule B (g) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each water management zone in the same catchment.	Control is reserved over: (a) the method of calculating the loss of nitrogen and phosphorus from a farm (b) the level of compliance with The FARM Strategy Workbook (Horizons Regional Council, April 2007) (c) effects on rare and threatened habitats* and at-risk habitats* (d) the preparation and implementation of a FARM Strategy for the purposes of meeting the requirements of this rule and the conditions of consent (e) the method, location, volume and rate of water takes (f) the review period of the FARM Strategy (g) the provision of information to the regional council to demonstrate compliance with this rule (h) duration of consent (i) review of consent conditions (j) compliance monitoring. Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).

	c. sludge from farm effluent ponds d. poultry farm litter and effluent and any consequential discharge of contaminants into air.			
Decisions Version Proposed One Plan				
13-1 Existing dairy farming* land^ use activities	The use of land^ pursuant to s9(2) RMA for dairy farming* that was existing as at 1 July 2010 in the Water Management Subzones* listed in Table 13.1 and any of the following discharges^ pursuant to ss15(1) or 15(2A) RMA associated with dairy farming*: (a) the discharge^ of fertiliser* onto or into land^ (b) the discharge^ of contaminants^ onto or into land^ from (i) the preparation, storage, use or transportation of stock feed on production land^ (ii) the use of a feedpad* (c) the discharge^ of grade Aa, Ab, Ba or Bb biosolids^, soil conditioners* or compost* onto or into production land^ (d) the discharge^ of poultry farm litter* onto or into production land^ (e) the discharge^ of farm animal effluent* onto or into production land^ (or upon expiry or surrender of any existing consent for that *discharge*^) including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.	**Controlled**	(a) A nutrient management plan* must be prepared for the land^, complied with and provided annually to the Regional Council. (b) Dairy cattle must be excluded from: (i) wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and (ii) beds^ of rivers^ that are permanently flowing or have an active bed* width greater than 1 m, other than at any specific location where access is required for dairy cattle to cross the river^ in which case (c) applies. (c) Rivers^ that are permanently flowing or have an active bed* width greater than 1 m, that are crossed by more than 1350 dairy cattle movements per week, must be bridged or culverted and run-off originating from the carriageway of the bridge or culvert must be discharged^ onto or into land^. (d) The discharge^ of fertiliser* onto or into land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-2. (e) The discharge^ of contaminants^ onto or into land^ from: (i) the preparation, storage, use or transportation of stock feed on production land^, or (ii) the use of a feedpad* and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-3. (f) The discharge^ of grade Aa biosolids*, soil conditioners* or compost* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4. (g) The discharge^ of grade Ab, Ba or Bb biosolids* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4A. (h) The discharge^ of poultry farm litter* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4B. (i) The discharge^ of farm animal effluent* onto or into production land^ including: (i) effluent from dairy sheds and feedpads* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary discharge^ of contaminants^ into air must comply with the conditions^, standards and terms of Rule 13-6.	Control is reserved over: (a) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the *land*^ (b) the matters of control in Rule 13-6 (c) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (d) provision of information including the *nutrient management plan** (e) duration of consent (f) review of consent *conditions*^ (g) compliance monitoring. *Resource consent*^ applications under this *rule*^ will not be notified and written approval of affected persons will not be required (notice of applications need not be *served*^ on affected persons).
13-1A Existing *dairy farming *land*^ use activities not complying with Rule 13-1**	The use of land^ pursuant to s9(2) RMA for dairy farming* that was existing as at 1 July 2010 in the Water Management Subzones* listed in Table 13.1, and any of the following discharges^ pursuant to ss15(1) or 15(2A) RMA associated with dairy farming*, that do not comply with one or more of the conditions^, standards and terms of Rule 13-1: (a) the discharge^ of fertiliser* onto or into land^ (b) the discharge^ of contaminants^ onto or into land^ from (i) the preparation, storage, use or transportation of stock feed on production land^ (ii) the use of a feedpad*	**Restricted Discretionary**		Discretion is restricted to: (a) preparation of a *nutrient management plan** for the *land*^ (b) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the *land*^ (c) measures to exclude dairy cattle from *wetlands*^ and *lakes*^ that are a *rare habitat** or *threatened habitat**, and *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m (d) the bridging or culverting of *rivers*^ that

	(c) the discharge^ of grade Aa, Ab, Ba or Bb biosolids^, soil conditioners* or compost* onto or into production land^ (d) the discharge^ of poultry farm litter* onto or into production land^ (e) the discharge^ of farm animal effluent* onto or into production land^ (or upon expiry or surrender of any existing consent for that discharge^) including: (i) effluent from dairy sheds and feedpads* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary discharge^ of contaminants^ into air pursuant to ss15(1) or 15(2A) RMA.			are permanently flowing or have an *active bed** width greater than 1 m that are crossed by dairy cattle (e) the matters referred to in the *conditions*^ of Rules 13-2, 13-3, 13-4, 13-4A and 13-4B (f) the matters referred to in the *conditions*^ of Rule 13-6 and the matters of control in Rule 13-6 (g) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (h) provision of information including the annual *nutrient management plan** (i) duration of consent (j) review of consent *conditions*^ (k) compliance monitoring.
13-1B New dairy farming* land^ use activities	The use of land^ pursuant to s9(2) RMA for any conversion to dairy farming* that occurs after 1 July 2010 anywhere within the Region and any of the following discharges^ pursuant to ss15(1) or 15(2A) RMA associated with dairy farming*: (a) the discharge^ of fertiliser* onto or into land^ (b) the discharge^ of contaminants^ onto or into land^ from (i) the preparation, storage, use or transportation of stock feed on production land^ (ii) the use of a feedpad* (c) the discharge^ of grade Aa, Ab, Ba or Bb biosolids^, soil conditioners* or compost* onto or into production land^ (d) the discharge^ of poultry farm litter* onto or into production land^ (e) the discharge^ of farm animal effluent* onto or into production land^ including: (i) effluent from dairy sheds and feedpads* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary discharge^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.	Controlled	(a) A *nutrient management plan** must be prepared for the *land*^, complied with and provided annually to the Regional Council. (b) The *nutrient management plan** must demonstrate compliance with the *cumulative nitrogen leaching maximum* for the land^ used for dairy farming*.* *(c) Dairy cattle must be excluded from:* *(i) wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and* *(ii) beds^ of rivers^ that are permanently flowing or have an active bed* width greater than 1 m, other than at any specific location where access is required for dairy cattle to cross the river^ in which case (d) applies.* *(d) Rivers^ that are permanently flowing or have an active bed* width greater than 1 m, that are crossed by more than 1350 dairy cattle movements per week, must be bridged or culverted and run-off originating from the carriageway of the bridge or culvert must be discharged^ onto or into land^.* *(e) The discharge^ of fertiliser* onto or into land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-2.* *(f) The discharge^ of contaminants^ onto or into land^ from:* (i) the preparation, storage, use or transportation of stock feed on production land^, or (ii) the use of a feedpad* and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-3. (g) The discharge^ of grade Aa biosolids*, soil conditioners* or compost* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4. (h) The discharge^ of grade Ab, Ba or Bb biosolids* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4A. (i) The discharge^ of poultry farm litter* onto or into production land^ and any ancillary discharge^ of contaminants^ into air must comply with the conditions^ of Rule 13-4B. (j) The discharge^ of farm animal effluent* onto or into production land^ including: (i) effluent from dairy sheds and feedpads* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary discharge^ of contaminants^ into air must comply with the conditions^, standards and terms of Rule 13-6.	Control is reserved over: (a) the implementation of farm management practices to maintain compliance with the cumulative nitrogen leaching maximum* for the land^ (b) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the land^ (c) the matters of control in Rule 13-6 (d) avoiding, remedying or mitigating the effects of odour, dust, fertiliser* drift or effluent drift (e) provision of information including the nutrient management plan* (f) duration of consent (g) review of consent conditions^ (h) compliance monitoring. Resource consent^ applications under this rule^ will not be notified and written approval of affected persons will not be required (notice of applications need not be served^ on affected persons).
13-1C New	The use of land^ pursuant to s9(2) RMA for dairy	**Restricted**		Discretion is restricted to:

***dairy farming* land^* use activities not complying with Rule 13-1B**	farming* that occurs after 1 July 2010 anywhere within the Region, and any of the following discharges^ pursuant to ss15(1) or 15(2A) RMA associated with dairy farming*, that do not comply with one or more of the conditions^, standards and terms of Rule 13-1B: (a) the discharge^ of fertiliser* onto or into land^ (b) the discharge^ of contaminants^ onto or into land^ from (i) the preparation, storage, use or transportation of stock feed on production land^ (ii) the use of a feedpad* (c) the discharge^ of grade Aa, Ab, Ba or Bb biosolids^, soil conditioners* or compost* onto or into production land^ d) the *discharge*^ of *poultry farm litter** onto or into *production land*^ (e) the *discharge*^ of farm *animal effluent** onto or into *production land*^ including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.	**Discretionary**		(a) preparation of a nutrient management plan* for the land^ (b) the implementation of reasonably practicable farm management practices for maintaining compliance with the cumulative nitrogen leaching maximum* for the land^ (c) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the land^ (d) measures to exclude dairy cattle from wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and rivers^ that are permanently flowing or have an active bed* width greater than 1 m (e) the bridging or culverting of rivers^ that are permanently flowing or have an *active bed** width greater than 1 m that are crossed by dairy cattle (f) the matters referred to in the *conditions*^ of Rules 13-2, 13-3, 13-4, 13-4A and 13-4B (g) the matters referred to in the *conditions*^ of Rule 13-6 and the matters of control in Rule 13-6 (h) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (i) provision of information including the annual *nutrient management plan** (j) duration of consent (k) review of consent *conditions*^ (l) compliance monitoring.
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13-1 Existing *dairy farming* land^* use activities	The use of *land*^ pursuant to s9(2) RMA for *dairy farming** that was existing as at 1 July 2010 in *the Water Management Sub-zones** listed in Table 13.1 and any of the following *discharges*^ pursuant to ss15(1) or 15(2A) RMA associated with *dairy farming**: (a) the *discharge*^ of *fertiliser** onto or into *land*^ (b) the *discharge*^ of *contaminants*^ onto or into *land*^ from (i) the preparation, storage, use or transportation of stock feed on *production land*^ (ii) the use of a *feedpad** (c) the *discharge*^ of grade Aa *biosolids*^, *soil conditioners** or *compost** onto or into *production land*^ (d) the *discharge*^ of *poultry farm litter** onto or into *production land*^ (e) the *discharge*^ of farm *animal effluent** onto or into *production land*^ (or upon expiry or surrender of any existing consent for that *discharge*^) including: (i) effluent from dairy sheds and *feedpads**	**Controlled**	(a) A *nutrient management plan** must be prepared from the date specified in Table 13.1 and provided annually to the Regional Council. The activity must be operated in accordance with the *nutrient management plan**. (b) The *nutrient management plan** referred to in condition (a) above, must demonstrate that the nitrogen leaching loss will not exceed the *cumulative nitrogen leaching maximum** as set out in Table 13.2 except that: (i) As at the date listed in Table 13.2 (i.e. only the first time an application is made) the nitrogen leaching loss limit can be based on the actual demonstrated nitrogen leaching loss from the farm in the year 2011. This limit will then be reduced in the following manner: 1. In year two there must be either a 33% reduction in the difference between the loss limit set in year one and the *nitrogen leaching maximum** set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. 2. In year three there must be a further 33% reduction in the difference between the loss limit set in year one and the *nitrogen leaching maximum** set out in Table 13.2 or a reduction of 2kg/N/ha whichever is the greater. 3. By year four the nitrogen leaching loss will not exceed the *cumulative nitrogen leaching maximum** as set out in Table 13.2	Control is reserved over: (a) the implementation of the *nutrient management plan** (b) compliance with the specified requirements referred to in the conditions of Rule 13-6 and the matters over which control is reserved in Rule 13-6 including a requirement to seal effluent storage and treatment facilities (including sumps and ponds) (c) compliance with the specified requirements referred to in the conditions of Rules 13-2, 13-3, 13-4 and 13-4B (d) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (e) provision of information including the *nutrient management plan** (f) duration of consent (g) review of consent *conditions*^ (h) compliance monitoring. *Resource consent*^ applications under this

	(ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA. Where the existing *dairy farming** land use is located partly on land within one or more of the *Water Management Sub-zones** listed in Table 13.1 and partly on other *land*^ this rule only applies if at least 20% of the *dairy farming** land use is located on *land*^ within the listed *Water Management Sub-zones**.		(a) Cattle must be excluded from: *(i)wetlands*^ and *lakes*^ that are a *rare habitat** or *threatened habitat**, *and* *(ii)*the *beds*^ of *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m, other than at any specific location where access is required for cattle to cross the *river*^ in which case (dɐ) applies. (b) Where there will be more than 1350 cattle movements per week across any river that is permanently flowing or has an active bed width greater than 1m, the cattle must cross via a bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be *discharged*^ onto or into *land*^. (c) The *discharge*^ of *fertiliser** onto or into *land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-2. (d) The *discharge*^ of *contaminants*^ onto or into *land*^ from: (i) the preparation, storage, use or transportation of stock feed on *production land*^, or (ii) the use of a *feedpad** and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-3. (e) The *discharge*^ of grade Aa *biosolids**, *soil conditioners** or *compost** onto or into *production land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-4. (f) The *discharge*^ of *poultry farm litter** onto or into *production land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-4B. (g) The *discharge*^ of farm *animal effluent** onto or into *production land*^ including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^, standards and terms of Rule 13-6.	*rule*^ will not be notified and written approval of affected persons will not be required (notice of applications need not be *served*^ on affected persons).
13-1A Existing *dairy farming land*^ use activities not complying with Rule 13-1**	The use of *land*^ pursuant to s9(2) RMA for *dairy farming** that was existing as at 1 July 2010 in *the Water Management Sub-zones** listed in Table 13.1, and any of the following *discharges*^ pursuant to ss15(1) or 15(2A) RMA associated with *dairy farming**, that do not comply with one or more of the *conditions*^, standards and terms of Rule 13-1: (a) the *discharge*^ of *fertiliser** onto or into *land*^ (b) the *discharge*^ of *contaminants*^ onto or into *land*^ from (i) the preparation, storage, use or transportation of stock feed on *production land*^ (ii) the use of a *feedpad** (c) the *discharge*^ of grade Aa *biosolids*^, *soil conditioners** or *compost** onto or into *production land*^ (d) the *discharge*^ of *poultry farm litter** onto or into *production land*^ (e) the *discharge*^ of farm *animal effluent** onto or into *production land*^ (or upon expiry or surrender of any existing consent for that *discharge*^) including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries	**Restricted Discretionary**		Discretion is restricted to: (a) preparation of a *nutrient management plan** for the *land*^ (b) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the *land*^ (c) measures to exclude dairy cattle from *wetlands*^ and *lakes*^ that are a *rare habitat** or *threatened habitat**, and *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m (d) the bridging or culverting of *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m that are crossed by dairy cattle (e) the matters referred to in the *conditions*^ of Rules 13-2, 13-3, 13-4, and 13-4B (f) the matters referred to in the conditions of Rule 13-6 (g) the matters referred to in the *conditions*^ of Rule 13-6 and the matters of control in Rule 13-6

	(iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.			(h) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (i) provision of information including the annual *nutrient management plan** (j) duration of consent (k) review of consent *conditions*^ (l) compliance monitoring.
13-1B New *dairy farming *land*^ use activities**	The use of *land*^ pursuant to s9(2) RMA for any conversion to *dairy farming** that occurs after 1 July 2010 anywhere within the Region and any of the following *discharges*^ pursuant to ss15(1) or 15(2A) RMA associated with *dairy farming**: (a) the *discharge*^ of *fertiliser** onto or into *land*^ (b) the *discharge*^ of *contaminants*^ onto or into *land*^ from (i) the preparation, storage, use or transportation of stock feed on *production land*^ (ii) the use of a *feedpad** (c) the *discharge*^ of grade Aa *biosolids*^, *soil conditioners** or *compost** onto or into *production land*^ (d) the *discharge*^ of *poultry farm litter** onto or into *production land*^ (e) the *discharge*^ of farm *animal effluent** onto or into *production land*^ including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.	**Controlled**	(a) A *nutrient management plan** must be prepared for the *land*^, and provided annually to the Regional Council. The activity must be operated in accordance with the *nutrient management plan**. (b) The *nutrient management plan** must demonstrate compliance with the *cumulative nitrogen leaching maximum** as set out in Table 13.2 for the *land*^ used for *dairy farming**. (c) Dairy cattle must be excluded from: (i) *wetlands*^ and *lakes*^ that are a *rare habitat** or *threatened habitat**, *and* (ii) the *beds*^ of *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m, other than at any specific location where access is required for cattle to cross the *river*^ in which case (d) applies. (d) Where there will be more than 1350 cattle movements per week across any river that is permanently flowing or has an active bed width greater than 1m, the cattle must cross via a bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be *discharged*^ onto or into *land*^. (e) The *discharge*^ of *fertiliser** onto or into *land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-2. (f) The *discharge*^ of *contaminants*^ onto or into *land*^ from: (i) the preparation, storage, use or transportation of stock feed on *production land*^, or (ii) the use of a *feedpad** and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-3. (g) The *discharge*^ of grade Aa *biosolids**, *soil conditioners** or *compost** onto or into *production land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-4. (h) The *discharge*^ of *poultry farm litter** onto or into *production land*^ and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^ of Rule 13-4B. (i) The *discharge*^ of farm *animal effluent** onto or into *production land*^ including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air must comply with the *conditions*^, standards and terms of Rule 13-6.	Control is reserved over: (a) the implementation of farm management practices to maintain compliance with the *cumulative nitrogen leaching maximum** for the *land*^ (b) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the *land*^ (c) compliance with the specified requirements referred to in the conditions of Rule 13-6 and the matters ~~of~~ over which control is reserved in Rule 13-6 (d) compliance with the specified requirements referred to in the conditions of Rules 13-2, 13-3, 13-4 and 13-4B (e) the matters of control in Rule 13-6 (f) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (g) provision of information including the *nutrient management plan** (h) duration of consent (i) review of consent *conditions*^ (j) compliance monitoring. *Resource consent*^ applications under this *rule*^ will not be notified and written approval of affected persons will not be required (notice of applications need not be *served*^ on affected persons).
13-1C New *dairy farming *land*^ use activities not complying with Rule 13-1B**	The use of *land*^ pursuant to s9(2) RMA for *dairy farming** that occurs after 1 July 2010 anywhere within the Region, and any of the following *discharges*^ pursuant to ss15(1) or 15(2A) RMA associated with *dairy farming**, that do not comply with one or more of the *conditions*^, standards and terms of Rule 13-1B: (a) the *discharge*^ of *fertiliser** onto or into *land*^ (b) the *discharge*^ of *contaminants*^ onto or into *land*^ from (i) the preparation, storage, use or	**Restricted Discretionary**		Discretion is restricted to: (a) preparation of a *nutrient management plan** for the *land*^ (b) the implementation of reasonably practicable farm management practices for maintaining compliance with the *cumulative nitrogen leaching maximum** for the *land*^ (c) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal

	transportation of stock feed on *production land*^ (ii) the use of a *feedpad** (c) the *discharge*^ of grade Aa *biosolids*^, *soil conditioners** or *compost** onto or into *production land*^ (d) the *discharge*^ of *poultry farm litter** onto or into *production land*^ (e) the *discharge*^ of farm *animal effluent** onto or into *production land*^ including: (i) effluent from dairy sheds and *feedpads** (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA.			contamination and sediment losses from the *land*^ (d) measures to exclude dairy cattle from *wetlands*^ and *lakes*^ that are a *rare habitat** or *threatened habitat**, and *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m (e) the bridging or culverting of *rivers*^ that are permanently flowing or have an *active bed** width greater than 1 m that are crossed by dairy cattle (f) the matters referred to in the *conditions*^ of Rules 13-2, 13-3, 13-4, and 13-4B (g) the matters referred to in the *conditions*^ of Rule 13-6 and the matters of control in Rule 13-6 (h) avoiding, remedying or mitigating the effects of odour, dust, *fertiliser** drift or effluent drift (i) provision of information including the annual *nutrient management plan** (j) duration of consent (k) review of consent *conditions*^ (l) compliance monitoring.
13-2 *Fertiliser**	The *discharge*^ of *fertiliser** onto or into *land*^ pursuant to ss15(1) or 15(2A) RMA and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA, except where the *discharge*^ is undertaken in association with a use of *land*^ controlled by Rules 13-1 to 13-1C.	**Permitted**	(a) There must be no direct *discharge*^ of *fertiliser** into any surface *water body*^ or its *bed*^ or *artificial watercourse** other than as provided for under (ba). (ba) All reasonable measures must be taken to prevent: (i) any *discharge*^ of *fertiliser** within the *bed*^ of a *river*^ that is permanently flowing or has an *active bed** width greater than 2 m, or any *lake*^ or *wetland*^ that has an area of 1 ha or more (ii) any *discharge*^ into any *rare habitat**, *threatened habitat** or *at-risk habitat**, except for the purpose of enhancing such habitats. Under condition (ba) "reasonable measures" includes the use of GPS technology. (b) For *production land*^ the *fertiliser** must be *discharged*^ in accordance with the Code of Practice for Nutrient Management (New Zealand Fertiliser Manufacturers' Research Association, 2007). (c) Where nitrogen *fertiliser** is *discharged*^ onto *land*^ in excess of 60 kgN/ha/year averaged across a whole farm area or in excess of an average rate of 150 kgN/ha/year on any application area a nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen, and covers and identifies the whole farm area including details of individual blocks and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the *fertiliser* discharge*^ and be made available to the Regional Council upon request. If a *nutrient management plan** is required under Rules 13-1, 13-1A, 13-1B or 13-1C then the nutrient budget required by this *condition*^ must be consistent with it and the activity must be carried out in accordance with it. (d) The *discharge*^ must not result in any offensive or objectionable odour or *fertiliser** drift beyond the *property** boundary.	
13-3 Stock feed including *feedpads**	The *discharge*^ of *contaminants*^ onto or into *land*^ pursuant to ss15(1) or 15(2A) RMA from: (a) the preparation, storage, use or transportation of stock feed on *production land*^, or (b) the use of a *feedpad** and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA, except	**Permitted**	(a) All silage (excluding maize silage) storage pits that have an area greater than 500 m^2 and all *feedpads**, must be sealed to restrict seepage of *contaminants*^. The permeability of the sealing layer must not exceed $1x10^{-9}$ m/s. (b) All areas used for storing stock feed, for *feedpads** or for otherwise feeding stock (including feeding silage) must be located and managed in a manner that ensures at all times when such areas are in use:	

	where the *discharge*^ is undertaken in association with a use of *land*^ controlled by Rule 13-1 to 13-1C.		(i) run-off from the area into surface *water*^ or *artificial watercourses**, is prevented (ii) run-off from the surrounding catchment is prevented from entering the area. (c) All areas used for storing stock feed, for *feedpads** or for otherwise feeding stock (including feeding silage) must comply with the following separation distances: (i) 50 m from *rare habitats**, *threatened habitats** and *at-risk habitats**, (ii) 20 m from *bores**, surface *water bodies*^, artificial watercourses*, and the *coastal marine area*^, and (iii) 50 m from any *historic heritage*^ identified in any *district plan*^ or *regional plan*^. (d) All *animal effluent** collected from *feedpads** must be treated and *discharged*^ in accordance with Rule 13-6. (e) The *discharge*^ must not result in any offensive or objectionable odour or dust beyond the *property** boundary.	
13-4 *Discharges* ^ of *grade Aa biosolids, *soil conditioners** and *compost** to *production land*^**	The *discharge*^ of *grade Aa biosolids**, *soil conditioners** or *compost** onto or into *production land*^ pursuant to ss15(1) or 15(2A) RMA, and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(1) or 15(2A) RMA, except where the *discharge*^ is undertaken in association with a use of *land*^ controlled by Rules 13-1 to 13-1C.	**Permitted**	(a) There must be no direct *discharge*^ or run-off into any surface *water body*^ or its *bed*^ or *artificial watercourse**. (c) For *soil conditioners** and *compost** the material must not contain any human or animal pathogens, or any *hazardous substances**. (ca) For *grade Aa biosolids** the *discharge*^ must comply with the requirements for *grade Aa biosolids** as included with Chapters 4 and 7 of Volume 1 and Chapters 8 (including monitoring requirements) and 9 of Volume 2 of the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). (d) The *discharge*^ must comply with the following separation distances: (iii) 50 m from *rare habitats**, *threatened habitats** and *at-risk habitats** (iv) 20 m from *bores**, surface *water bodies*^, *artificial watercourses** and the *coastal marine area*^ (v) 50 m from any *historic heritage*^ identified in any *district plan*^ or *regional plan*^. (e) A nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the *discharge*^ of the *grade Aa biosolids**, *soil conditioner** or *compost**. If a *nutrient management plan** is required under Rules 13-1 to 13-1C then the nutrient budget required by this *condition*^ must be consistent with it and the activity must be carried out in accordance with it. (f) The *discharge*^ must not result in any offensive or objectionable odour or dust beyond the *property** boundary. (g) The discharger must keep the following records: (i) a daily record of the *discharge*^ volume and location (ii) a monthly (or more frequent) analysis of the nitrogen concentration of a *discharge*^ sample and make these records available to the Regional Council upon request.	
13-4A Grade Ab, Ba or Bb *biosolids**	The *discharge*^ of grade Ab, Ba or Bb *biosolids** onto or into *production land*^ pursuant to ss15(1) or 15(2A) RMA, and any ancillary *discharge*^ of *contaminants*^ into air pursuant to ss15(2) or 15(2A) RMA, except where the *discharge*^ is undertaken in association with a use of *land*^ controlled by Rules 13-1 to 13-1C.	**Restricted Discretionary**	(a) There must be no direct *discharge*^ or run-off into any surface *water body*^ or its *bed*^ or *artificial watercourse**. (b) The material must have undergone stabilisation processes to achieve at least B grade as defined by the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). *Hazardous substances** must not exceed b grade limits as given by the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). (c) The *discharge*^ must comply with the following separation distances: (i) 150 m from residential buildings, public places and amenity areas where people congregate, education facilities and public roads	Discretion is reserved over: (a) the rate of *discharge*^ and frequency of *discharge*^ to control nutrient and contaminant loading rates (b) maintenance of vegetative cover in the area of *discharge*^ (c) avoiding, remedying or mitigating the effects of odour or dust (d) contingency measures, including for events of mechanical failure and prolonged wet weather (e) monitoring and information requirements

			(ii) 50 m from *property** boundaries (iii) 50 m from *rare habitats**, *threatened habitats** and *at-risk habitats** (iv) 20 m from *bores**, surface *water bodies*^, *artificial watercourses** and the *coastal marine area*^ (v) 50 m from any *historic heritage*^ identified in any *district plan*^ or *regional plan*^. (d) A nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the *biosolids** *discharge*^. If a *nutrient management plan** is required under Rules 13-1 to 13-1C then the nutrient budget required by this *condition*^ must be consistent with it and the activity must be carried out in accordance with it. (e) The *discharge*^ must not result in any offensive or objectionable odour or dust beyond the *property** boundary.	(f) duration of consent (g) review of consent *conditions*^, and (h) compliance monitoring.

Appendix 2 The National Policy Statement on Freshwater Management 2011

NATIONAL POLICY STATEMENT

Freshwater Management 2011

Issued by notice in the Gazette on 12 May 2011

newzealand.govt.nz

Contents

Preamble

Fresh water is essential to New Zealand's economic, environmental, cultural and social well-being. Fresh water gives our primary production, tourism, and energy generation sectors their competitive advantage in the global economy. Fresh water is highly valued for its recreational aspects and it underpins important parts of New Zealand's biodiversity and natural heritage. Fresh water has deep cultural meaning to all New Zealanders. Many of New Zealand's lakes, rivers and wetlands are iconic and well known globally for their natural beauty and intrinsic values.

The Treaty of Waitangi (Te Tiriti o Waitangi) is the underlying foundation of the Crown–iwi/hapū relationship with regard to freshwater resources. Addressing tāngata whenua values and interests across all of the well-beings, and including the involvement of iwi and hapū in the overall management of fresh water, are key to meeting obligations under the Treaty of Waitangi.

All New Zealanders have a common interest in ensuring the country's freshwater lakes, rivers, aquifers and wetlands are managed wisely.

New Zealand faces challenges in managing our fresh water to provide for all of the values that are important to New Zealanders. The quality, health, availability and economic value of our fresh water are under threat. These challenges are likely to increase over time due to the impacts of climate change.

To respond effectively to these challenges and issues we need to have a good understanding of our freshwater resources, the threats to them and provide a management framework that enables water to contribute both to New Zealand's economic growth and environmental integrity and provides for the values that are important to New Zealanders.

This national policy statement sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. The national policy statement is a first step to improve freshwater management at a national level.

Setting enforceable quality and quantity limits is a key purpose of this national policy statement. This is a fundamental step to achieving environmental outcomes and creating the necessary incentives to use fresh water efficiently, while providing certainty for investment. Water quality and quantity limits must reflect local and national values. The process for setting limits should be informed by the best available information and scientific and socio-economic knowledge.

Once limits are set, freshwater resources need to be allocated to users, while providing the ability to transfer entitlements between users so that we maximise the value we get from water. Where water resources are over-allocated (in terms of quality and quantity) to the point that national and local values are not met, we also need to ensure that over-allocation is reduced over agreed timeframes.

Given the vital importance of freshwater resources to New Zealand and New Zealanders, and in order to achieve the purpose of the Resource Management Act 1991 (the Act), the Crown recognises there is a particular need for clear central government policy to set a national direction, though the management of the resource needs to reflect the catchment-level variation between water bodies and

different demands on the resource across regions. This includes managing land use and development activities that affect water so that growth is achieved with a lower environmental footprint.

The New Zealand Coastal Policy Statement 2010 addresses issues with water quality in the coastal environment. The management of coastal water and fresh water requires an integrated and consistent approach.

National values of fresh water

Water is valued for the following uses:

- domestic drinking and washing water
- animal drinking water
- community water supply
- fire fighting
- electricity generation
- commercial and industrial processes
- irrigation
- recreational activities (including waka ama)
- food production and harvesting eg, fish farms and mahinga kai
- transport and access (including tauranga waka)
- cleaning, dilution and disposal of waste.

There are also values that relate to recognising and respecting fresh water's intrinsic values for: safeguarding the life-supporting capacity of water and associated ecosystems; and sustaining its potential to meet the reasonably foreseeable needs of future generations. Examples of these values include:

- the interdependency of the elements of the freshwater cycle
- the natural form, character, functioning and natural processes of water bodies and margins, including natural flows, velocities, levels, variability and connections
- the natural conditions of fresh water, free from biological or chemical alterations resulting from human activity, so that it is fit for all aspects of its intrinsic values
- healthy ecosystem processes functioning naturally
- healthy ecosystems supporting the diversity of indigenous species in sustainable populations
- cultural and traditional relationships of Māori with fresh water
- historic heritage associations with fresh water
- providing a sense of place for people and communities.

All the values in both lists are important national values of fresh water.

Review

The Minister for the Environment intends to seek an independent review of the implementation and effectiveness of this national policy statement in achieving all its objectives and policies and in achieving the purpose of the Act, no later than five years after it comes into force. The Minister shall then consider the need to review, change or revoke this national policy statement. Collection of monitoring data to inform this review will begin at least two years prior to the review.

This preamble may assist the interpretaton of the national policy statement.

Title

This national policy statement is the National Policy Statement for Freshwater Management 2011.

Commencement

This national policy statement will take effect on 1 July 2011.

Interpretation

In this national policy statement:

Efficient allocation includes economic, technical and dynamic efficiency.

Environmental flows and/or levels are a type of limit which describes the amount of water in a body of fresh water (except ponds and naturally ephemeral water bodies) which is required to meet freshwater objectives. Environmental flows for rivers and streams must include an allocation limit and a minimum flow (or other flow/s). Environmental levels for other bodies of fresh water must include an allocation limit and a minimum water level (or other level/s).

Freshwater objective describes the intended environmental outcome(s).

Limit is the maximum amount of resource use available, which allows a freshwater objective to be met.

Over-allocation is the situation where the resource:

a) has been allocated to users beyond a limit or

b) is being used to a point where a freshwater objective is no longer being met.

This applies to both water quantity and quality.

Outstanding freshwater bodies are those water bodies with outstanding values, including ecological, landscape, recreational and spiritual values.

Target is a limit which must be met at a defined time in the future. This meaning only applies in the context of over-allocation.

Terms given meaning in the Act have the meanings so given.

A. Water quality

Objective A1

To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants.

Objective A2

The overall quality of fresh water within a region is maintained or improved while:

a) protecting the quality of outstanding freshwater bodies

b) protecting the significant values of wetlands and

c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.

Policy A1

By every regional council making or changing regional plans to the extent needed to ensure the plans:

a) establish freshwater objectives and set freshwater quality limits for all bodies of fresh water in their regions to give effect to the objectives in this national policy statement, having regard to at least the following:

   i) the reasonably foreseeable impacts of climate change

   ii) the connection between water bodies

b) establish methods (including rules) to avoid over-allocation.

Policy A2

Where water bodies do not meet the freshwater objectives made pursuant to Policy A1, every regional council is to specify targets and implement methods (either or both regulatory and non-regulatory) to assist the improvement of water quality in the water bodies, to meet those targets, and within a defined timeframe.

Policy A3

By regional councils:

a) imposing conditions on discharge permits to ensure the limits and targets specified pursuant to Policy A1 and Policy A2 can be met and

b) where permissible, making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

Policy A4 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy A1 and Policy A2 (freshwater quality limits and targets) have become operative:

"1. When considering any application for a discharge the consent authority must have regard to the following matters:

a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and

b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.

2. This policy applies to the following discharges (including a diffuse discharge by any person or animal):

a) a new discharge or

b) a change or increase in any discharge –

of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011."

B. Water quantity

Objective B1

To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water.

Objective B2

To avoid any further over-allocation of fresh water and phase out existing over-allocation.

Objective B3

To improve and maximise the efficient allocation and efficient use of water.

Objective B4

To protect significant values of wetlands.

Policy B1

By every regional council making or changing regional plans to the extent needed to ensure the plans establish freshwater objectives and set environmental flows and/or levels for all bodies of fresh water in its region (except ponds and naturally ephemeral water bodies) to give effect to the objectives in this national policy statement, having regard to at least the following:

a) the reasonably foreseeable impacts of climate change

b) the connection between water bodies.

Policy B2

By every regional council making or changing regional plans to the extent needed to provide for the efficient allocation of fresh water to activities, within the limits set to give effect to Policy B1.

Policy B3

By every regional council making or changing regional plans to the extent needed to ensure the plans state criteria by which applications for approval of transfers of water take permits are to be decided, including to improve and maximise the efficient allocation of water.

Policy B4

By every regional council identifying methods in regional plans to encourage the efficient use of water.

Policy B5

By every regional council ensuring that no decision will likely result in future over-allocation – including managing fresh water so that the aggregate of all amounts of fresh water in a water body that are authorised to be taken, used, dammed or diverted – does not over-allocate the water in the water body.

Policy B6

By every regional council setting a defined timeframe and methods in regional plans by which over-allocation must be phased out, including by reviewing water permits and consents to help ensure the total amount of water allocated in the water body is reduced to the level set to give effect to Policy B1.

Policy B7 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy B1 (allocation limits), Policy B2 (allocation), and Policy B6 (over-allocation) have become operative:

"1. When considering any application the consent authority must have regard to the following matters:

a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and

b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.

2. This policy applies to:

a) any new activity and

b) any change in the character, intensity or scale of any established activity –

that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011."

C. Integrated management

Objective C1

To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.

Policy C1

By every regional council managing fresh water and land use and development in catchments in an integrated and sustainable way, so as to avoid, remedy or mitigate adverse effects, including cumulative effects.

Policy C2

By every regional council making or changing regional policy statements to the extent needed to provide for the integrated management of the effects of the use and development of land on fresh water, including encouraging the co-ordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure.

D. Tāngata whenua roles and interests

Objective D1

To provide for the involvement of iwi and hapū, and to ensure that tāngata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.

Policy D1

Local authorities shall take reasonable steps to:

a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region

b) work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region and

c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

E. Progressive implementation programme

Policy E1

a) This policy applies to the implementation by a regional council of a policy of this national policy statement.

b) Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2030.

c) Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2014, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2030.

d) Any programme of time-limited stages is to be formally adopted by the council within 18 months of the date of gazetting of this national policy statement, and publicly notified.

e) Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.

Appendix 3 The National Policy Statement for Freshwater Management 2011: Implementation Guidance 2011

Ministry for the Environment
Manatū Mō Te Taiao

National Policy Statement for Freshwater Management 2011: Implementation Guide

New Zealand Government

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Contents

1 Introduction

1.1 Purpose and focus of guide

This guidance provides local authorities with commentary on the National Policy Statement for Freshwater Management (NPSFM) and provides considerations for local authorities in responding to, and giving effect to, that National Policy Statement (NPS). This guidance does not form part of the NPSFM and does not have statutory weight.

This guidance is focused on the NPSFM only. It is designed to provide background information and commentary on the intent of the NPS, and to assist local authorities in considering how the key messages, concepts and directions should be implemented.

It is acknowledged there are differing circumstances, issues and approaches for regions and districts across New Zealand. These differences relate to both regional freshwater management issues and the local approach to regional plans.

The guidance is to enable local authorities to apply the NPSFM at their local level.

1.2 Key messages

The key messages in this guidance are:

- local government is responsible for catchment-based freshwater management
- an objectives and limits-based regime will provide certainty for both economic and environmental outcomes
- a limits-based regime will avoid over-allocation and enable cumulative effects to be better considered and managed
- implementing the NPSFM will take time, will involve new approaches, and will not necessarily be achieved in one step
- the NPSFM alone will not achieve local or national objectives for freshwater management
- regional councils are required to work with iwi and hapū to identify tāngata whenua values and interests in fresh water and reflect these in the management of, and decision-making regarding, fresh water.

1.3 National policy statements are Resource Management Act instruments

The NPSFM is an instrument under the Resource Management Act 1991 (RMA). The NPSFM must be interpreted and given effect to within the context of the RMA.

While the NPSFM gives direction on the outcomes sought, it does not specify how to achieve those outcomes. New approaches are encouraged to achieve the objectives of the NPSFM, but it is up to local authorities and their communities to determine appropriate local objectives and methods.

1.4 Broader context – the Fresh Start for Fresh Water programme

The NPSFM is one of the first set of initiatives to be developed as part of the Government's Fresh Start for Fresh Water programme of water reform, and is an early and necessary component for improving freshwater management in New Zealand. The NPSFM will help to clarify the regulatory framework for the reform package as a whole. The NPSFM alone will not achieve the objectives for freshwater management, and a further work programme has been commissioned to support councils in giving effect to the NPSFM, and to deal with matters outside the scope of the NPSFM.

Information on the Fresh Start for Fresh Water programme is available on the Ministry for the Environment website: http://www.mfe.govt.nz/issues/water/freshwater/fresh-start-for-fresh-water/index.html

This guide will be periodically updated as both policy and good practice develop.

1.5 Other associated documents and instruments

A number of national instruments and documents are relevant to the NPSFM. These can be found on the internet and include those summarised below.

1.5.1 Relationship with other NPSs

All NPSs must be considered and given effect to individually. The NPSs are not prioritised over each other, nor are they considered to be in conflict with each other.

The *NPS for Renewable Electricity Generation* (NPSREG) provides for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities. The preamble to the NPSREG notes that: "this national policy statement does not apply to the allocation and prioritisation of freshwater as these are matters for regional councils to address in a catchment or regional context and may be subject to the development of national guidance in the future". The NPSFM preamble identifies electricity generation as one of 11 important national values of fresh water but does not prioritise uses or values. The NPSREG sits

alongside the NPSFM but relates to different subject matter. The NPSREG is available on the Ministry for the Environment website: http://www.mfe.govt.nz/publications/rma/nps-renewable-electricity-generation-2011/index.html

The *New Zealand Coastal Policy Statement 2010* (NZCPS 2010) contains policies in relation to water quality in the coastal environment. Freshwater resources within the coastal environment are also covered by the NPSFM. Some of the objectives and policies of the NZCPS 2010 apply to the same waterbodies and subject matter as the NPSFM, and both need to be considered and given effect to. Coordinated implementation of both documents will be required. Two objectives and five policies of the NZCPS 2010 are particularly relevant to the NPSFM. These are listed below and included in Appendix A for easy reference:

- Objective 1: Ecosystems
- Objective 3: Treaty of Waitangi
- Policy 2: Tāngata whenua
- Policy 4: Integrated management
- Policy 21: Enhancement of water quality
- Policy 22: Sedimentation
- Policy 23: Discharge of contaminants.

The interrelationships and overlaps between NZCPS 2010 policies and those in the NPSFM are referred to in the guidance provided in Section 2 of this document. These links require particular consideration at the individual policy level when local authorities give effect to the individual objectives and policies of the NPSFM.

The NZCPS 2010 is available on the Department of Conservation's website: http://www.doc.govt.nz/conservation/marine-and-coastal/coastal-management/nz-coastal-policy-statement

1.5.2 Relationship with Treaty settlement legislation

Under the *Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010*, the Waikato River Authority's Vision and Strategy has the status of a NPS and prevails over any inconsistent provisions in other NPSs. The Vision and Strategy will have greater impact on Waikato's freshwater management than the NPSFM. This is because the NPSFM, although broadly consistent, is less specific than the Vision and Strategy, which is available on the Authority's website: http://www.waikatoriver.org/news-and-publications

Other Treaty settlement legislation may introduce Treaty settlement solutions that involve governance, decision-making arrangements or processes to set objectives for freshwater management. Treaty settlements may also provide a means of giving effect to aspects of the NPSFM.

1.5.3 Relationship with Hauraki Gulf Marine Park Act 2000

Under the *Hauraki Gulf Marine Park Act 2000 (HGMPA),* the provisions of section 55 of the RMA apply as though sections 7 and 8 of the HGMPA were a NPS. Section 7 recognises that the interrelationship between the Hauraki Gulf, its islands and catchments, and the ability of that interrelationship to sustain the life-supporting capacity of the environment of the Hauraki Gulf and its islands, are matters of national significance. Section 8 sets out the objectives of the management of the Hauraki Gulf, its islands and catchments. The NPS deemed by the HGMPA overlaps with the NPSFM in the Auckland and Waikato regions. In those regions, councils therefore need to ensure implementation of the NPSFM does not conflict with the HGMPA. The more specific NPSFM will provide direction in implementing sections 7 and 8 of the HGMPA. The HGMPA is available at:
http://legislation.govt.nz/act/public/2000/0001/latest/DLM52558.html

1.5.4 Relationship with national environmental standards

National environmental standards (NESs) are regulations issued under the RMA. NESs prescribe technical standards, methods or requirements for particular matters. NESs are a specific requirement with the force of a rule and local authorities must enforce them. As NESs establish a prescribed regulatory requirement, they can potentially prescribe some of the means by which local authorities can give effect to and implement a NPS.

The *National Environmental Standard for Sources of Human Drinking Water* is intended to reduce the risk of contaminating drinking water sources, such as rivers and groundwater. This NES will be relevant to regional councils considering how to give effect to the NPSFM because it requires the councils to ensure effects on drinking water sources are considered in regional plans and decisions on resource consents. This NES is available on the Ministry's website: http://www.mfe.govt.nz/laws/standards/drinking-water-source-standard.html

In 2008, public consultation was undertaken on a *Proposed National Environmental Standard on Ecological Flows and Water Levels*. Should this proposed NES become regulation, it is likely to be relevant in implementing the NPSFM. The background information available on this proposed NES, including draft guidelines on methods to determine ecological flows and water levels (Ministry for the Environment, 2008),[1] may assist in giving effect to the NPSFM. The draft is available on the Ministry's website:
http://www.mfe.govt.nz/publications/water/proposed-nes-ecological-flows-water-levels-mar08/index.html

[1] Ministry for the Environment. 2008. *Draft Guidelines for the Selection of Methods to Determine Ecological Flows and Water Levels.* Prepared for the Ministry for the Environment by Beca Infrastructure Ltd. Wellington: Ministry for the Environment.

1.5.5 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

The *Resource Management (Measurement and Reporting of Water Takes) Regulations 2010* require significant water takes to be measured and results reported to the regional council. These regulations will assist councils to implement Objective B3 of the NPSFM, which is to improve and maximise efficient allocation and efficient use of fresh water by providing more accurate information about allocation, use and efficiency gains in specific catchments. The regulations are available on the Ministry's website: www.mfe.govt.nz/rma/central/measuring-reporting-water-takes.html

1.5.6 Water conservation orders

Some catchments have water conservation orders (WCOs), which have provisions relevant to the NPSFM. WCOs are gazetted under the RMA. Existing and new WCOs may help give effect to the NPSFM. For example, a requirement that a waterbody "shall remain in its natural state" provides an 'environmental state' objective for the waterbody, although additional objectives that do not conflict with this objective could be added through the planning process. Any activity that has an impact on the quality or quantity of the waterbody can be assessed against that natural state objective. Some WCOs also set a flow regime, which will contribute to defining a quantity limit.

1.5.7 Other national guidance and technical information on freshwater management

A number of technical, guidance and background reports for freshwater management are available. Of particular relevance are the following reports, which are all available on the Ministry for the Environment's website:

- Ministry for the Environment. 1998. *Flow Guidelines for Instream Values*. Wellington: Ministry for the Environment.
- Ministry for the Environment. 2008. *Draft Guidelines for the Selection of Methods to Determine Ecological Flows and Water Levels*. Prepared for the Ministry for the Environment by Beca Infrastructure Ltd. Wellington: Ministry for the Environment.
- Simpson Grierson. 2010. *Case law on limits for freshwater quality and environmental flows*. Prepared for the Ministry for the Environment. Wellington: Simpson Grierson.
- Norton N, Snelder T and Rouse H. 2010. *Technical and scientific considerations when setting measurable objectives and limits for water management*. Prepared for the Ministry for the Environment. Christchurch: National Institute of Water and Atmospheric Research Ltd.

1.6 Amending plans to give effect to the NPS

Section 55 of the RMA imposes an obligation on local authorities to "give effect to" the provisions of the NPS in two particular ways:

- local authorities must amend relevant plans and policy statements to include specified objectives and policies
- local authorities are obliged to make all other amendments to the relevant plans and policy statements that are needed to give effect to other provisions of the NPS.

Under section 62 of the RMA, a regional policy statement (RPS) must not be inconsistent with a NPS. Under section 67 of the RMA a regional plan must give effect to a NPS. Under section 75 of the RMA, a district plan must give effect to a NPS.

To ensure it is meeting its obligations, a local authority must assess all relevant RMA plans and policy statements. Where those plans and policy statements do not already give effect to this NPS, they must be amended through a RMA Schedule 1 process. The exception is the transitional provisions in Policies A4 and B7, which can be directly inserted into plans if required.

There is no discretion as to whether or not to give effect to the NPSFM; however, there is discretion in how it is given effect to.

Policy E of the NPSFM outlines the timing for implementing the NPSFM.

1.7 Relevance to decision-making on consents

All consent authorities must have regard to the NPSFM when considering and/or making decisions on resource consents (section 104(1)(b)(iii)), and have particular regard to it when considering notices of requirement for heritage orders and designations.

"Have regard to" imposes an obligation on decision-makers to give attention and thought to the NPSFM, although the consideration is still specified to be subject to Part II of the Act.

Since 1 July 2011, consent authorities have been required to meet these obligations, whether or not local authorities have made amendments to RPSs and plans to give effect to the NPS. Also, the NPSFM is a matter to have regard to when considering and deciding any application after 1 July 2011, even if the application was lodged before that date.

The NPSFM is not specified to be a mandatory consideration in determining notification of an application under sections 95 to 95G of the RMA, but it may help identify relevant effects to consider in making the determination.

1.8 Roles and responsibilities

The majority of the NPSFM policies set expectations on regional councils to manage fresh water in ways that are consistent with the functions of those councils under section 30 of the RMA. A number of the policies provide specific direction about who is to do what; for example, where regional councils are directed to change a regional plan or impose conditions on consents.

Territorial authorities also have a role in implementing the NPSFM, particularly working with regional councils on integrated management, and on RPS provisions that may direct territorial authorities to take certain action through district plans that give effect to RPSs.

Some policies in the NPSFM are about processes and approaches relevant to all local authorities, in particular, integrated management and tāngata whenua involvement.

The format of Section 2.3 of this guidance aims to provide direction where there are specific responses required by either regional councils or territorial authorities.

2 Guidance on the National Policy Statement for Freshwater Management

2.1 Preamble to the National Policy Statement

The preamble within the NPSFM does not include objectives and policies. It can be used as a guide to assist the interpretation of the objectives or policies where necessary to resolve uncertainty. It is primarily intended to act as an introduction to enable the role and operation of the NPS to be understood.

The preamble includes a section on national values of fresh water. This part of the preamble is attached in Appendix B. The Board of Inquiry recommended the NPSFM include a list of national values. The values were derived from the RMA, the proposed NPS, submissions and evidence to the Board. Two groupings of national values are identified, first those providing for the wellbeing and amenity of people and communities, and secondly, those recognising and respecting fresh water's intrinsic values. Intrinsic values of fresh water are stated in the preamble as substantial in themselves and not subordinate to economic values of fresh water for potential use for people and community wellbeing. The national values are not prioritised. At a national level it is not possible to prioritise individual activities and values, given the range of local circumstances and considerations that might apply. It is for regional communities, facilitated by regional councils, to consider values and priorities locally and determine how to respond to those values at a local level in implementing the policies of the NPSFM.

The preamble notes that an independent review of the implementation and effectiveness of the NPSFM will be sought no later than five years after the NPSFM comes into effect. The need to review, change or revoke the NPSFM will be considered following the review. Monitoring data and information will be required to inform this review. A monitoring programme will be developed separate to this guidance. The Fresh Start for Fresh Water programme will be further advanced in five years to provide more context and complementary policy and programmes within which the NPSFM sits. This will enable the review to ensure the NPSFM is fit for purpose within the framework that is in place in five years' time.

2.2 Interpretation

The NPSFM lists a series of definitions of terms relevant to the national policy statement and these are repeated below for convenience. Terms used and defined in the RMA have the meaning given in the RMA.

Efficient allocation *includes economic, technical and dynamic efficiency.*

These different aspects of efficiency are outlined further in relation to Policies B2, B3 and B4.

Environmental flows and/or levels *are a type of limit that describes the amount of water in a body of fresh water (except ponds and naturally ephemeral waterbodies) which is required to meet freshwater objectives. Environmental flows for rivers and streams must include an allocation limit and a minimum flow (or other flow/s). Environmental levels for other bodies of fresh water must include an allocation limit and a minimum water level (or other level/s).*

Environmental flows and water levels are the flows and water levels required in a waterbody to provide for a given set of values; and these values are established by setting the freshwater objective. Environmental flows and water levels encompass all environmental matters that are relevant to the objective set for the waterbody. This may include providing for ecological, tāngata whenua, cultural, amenity, recreational, landscape, natural character and other values associated with water.

An environmental flow/level must include both an allocation limit and a minimum flow/level. The allocation limit is the quantum of water that can be extracted, while the minimum flow is the amount of instream flow at which taking must cease, regardless of whether the full allocation has been taken or not. A flow regime does not have to be one figure.

If the limit set for a waterbody includes a water level, then the waterbody will have both an allocation limit and an environmental level. An environmental flow for an aquifer will be an allocation limit, and may (but does not need to) include a water level. Background information on the proposed NES for ecological flows and water levels is a relevant consideration but does not encompass all considerations for environmental flows; for example, recreation values or cultural values are not referred to in the background information relating to ecological flows.

Freshwater objective *describes the intended environmental outcome(s).*

A freshwater objective is the environmental outcome sought for the waterbody. This describes the environmental state required to enable community values and wishes to be achieved. The development of an environmental objective will therefore encompass two steps. First, determining the desired community outcomes; for example, retention of a healthy trout fishery; retention of mauri; ability to swim in the river in summer; ability to use the water for stock watering without treatment; or ability to use the water for municipal water supply with only chlorination. Second, determining what environmental state is needed for those outcomes to be achieved.

In determining community objectives, the list of national values of freshwater set out in the preamble (and in Appendix B) is relevant.

Freshwater objectives can be set at a variety of scales and levels of detail and may be narrative or numeric. Further explanation and examples on freshwater objectives is provided in the discussion of Policies A1 and B1 in section 2.3 of this guidance.

***Limit** is the maximum amount of resource use available, which allows a freshwater objective to be met.*

A limit is a specific quantifiable amount. Limits can be set at a range of scales to fit regional circumstances. Limits can cover a range of matters, and will clearly specify the maximum or minimum that relates to that matter (eg, maximum cadmium levels entering a waterbody; minimum water levels). A limit may apply to a water *quality* parameter (the assimilative capacity of waterbodies or cumulative limit below which discharges can be sustainably managed), or a water *quantity* parameter (limits on take). Limits can be specific to a waterbody or part of a waterbody (eg, blocks or sections of a river), or can cover a number of waterbodies with similar characteristics (a default limit). Further explanation of limits is provided in the discussion of Policies A1 and B1 in section 2.3.

***Over-allocation** is the situation where the resource:*

(a) has been allocated to users beyond a limit, or

(b) is being used to a point where a freshwater objective is no longer being met.

This applies to both water quantity and quality.

Setting the freshwater objective and limit establishes the level beyond which over-allocation will occur. Over-allocation occurs when either, or both, of the relevant objective and limit are not being met. This is a measure of when cumulative adverse effects start to occur. Further explanation of over-allocation is provided in the discussion of Policies A1, B5 and B6 in section 2.3.

***Outstanding freshwater bodies** are those waterbodies with outstanding values, including ecological, landscape, recreational and spiritual values.*

An "outstanding" waterbody is one that is exceptional in some way. It may be exceptional in relation to one particular attribute, but it may also have a number of outstanding attributes. An outstanding value is a high threshold. There are expected to be a small number of outstanding freshwater bodies identified and protected by regional councils across the country. A waterbody that is not nationally significant may be outstanding for local reasons. Communities will determine outstanding freshwater bodies in establishing objectives and limits through the regional plans process.

***Target** is a limit that must be met at a defined time in the future. This meaning only applies in the context of over-allocation.*

A target forms part of a staged work programme to work towards the limits that are necessary to achieve the objective.

2.3 Objectives and policies

This section examines each of the objectives and policies in the NPSFM, and outlines possible regional and territorial responses. The objectives and policies are interrelated and should be considered and implemented in an integrated manner.

Each objective and policy in the NPSFM is presented, followed by specific commentary on it, followed by the possible local authority responses.

A Water quality

Objective A1

To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the use and development of land, and of discharges of contaminants.	
Achieving the objective of safeguarding the environmental bottom line will require consideration of all sources of potential contaminants (human and natural) holistically, including point source discharges and diffuse discharges. These include contamination from urban storm water, application of fertilisers or pesticides and effluent discharge from stock grazing. Freshwater bodies, and the aquatic communities they support, will be variable across a region for different types of freshwater ecosystems. The level of habitat protection to safeguard life-supporting capacity will also depend on regional circumstances. Life-supporting capacity is measured through a range of indicators or parameters. Objective A1 is a relevant consideration for all applications for resource consents, including discharge applications and land-use applications that potentially impact on freshwater quality. The word “safeguard” requires a proactive response by local authorities determining ways to ensure, for example, “protection of freshwater ecosystems”. However, the objective does not imply there would never be any change or adverse effect in a waterbody. Rather, it requires that change is proactively managed to ensure the defined objective continues to be met. Objective A1 provides for a balanced approach, consistent with the purpose of the RMA.	
Regional response	**Territorial response**
Regional policy statements and plans already contain freshwater quality provisions. In implementing the NPSFM, existing provisions will need to be assessed to determine whether they adequately reflect Objective A1 generally, and as it relates to objectives set for each waterbody. Objective A1 will be a relevant consideration in consent decision-making.	Objective A1 will be a relevant consideration in consent and Notice of Requirement decision-making.

Objective A2

The overall quality of fresh water within a region is maintained or improved while:

a. protecting the quality of outstanding freshwater bodies

b. protecting the significant values of wetlands, and

c. improving the quality of fresh water in waterbodies that have been degraded by human activities to the point of being over-allocated.

Overall quality of fresh water

Objective A2 recognises that a bottom line of at least maintaining all aspects of water quality everywhere is not possible. It does not require every degraded waterbody will be cleaned up, some will remain in their current state; the objective-setting process will determine which ones. The Objective allows for some variability in water quality as long as the overall water quality is maintained in a region. Objective A1 must also be met.

This Objective also sets three additional, specific requirements for managing water quality.

Outstanding freshwater bodies

Where the affected waterbody is "outstanding" it must be protected.

Protecting outstanding waterbodies and significant wetlands is a high threshold. It generally means that adverse effects on the quality of the waterbody, or values of the wetland, will be avoided.

Objective A2 recognises there are a small number of outstanding waterbodies across New Zealand that should be protected. "Outstanding waterbodies" is defined in the NPSFM as "bodies with outstanding values including ecological, landscape, recreational and spiritual values". Regional communities will determine which waterbodies are outstanding through the regional objective-setting process.

Significant values of wetlands

The second requirement is that any significant values of wetlands must be protected.

A wetland is defined in the RMA as including "permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions".

In this case, it is the values rather than the wetland itself that Objective A2 seeks to protect.

Significant value(s) of a wetland and how to protect them will need to be determined according to regional community preferences. For example, a wetland may have a significant value related to native biodiversity, fisheries, geomorphology, culture, science, recreation, landscape, water yield regulation or water purification. Any conflicts between protection measures for different values will need to be resolved; for example, a biodiversity value may be protected by preventing contaminated water entering the wetland, while a water purification objective could be protected by allowing such flows to enter and maintaining the wetland to allow flows to be effectively processed. The Ramsar Convention on Wetlands (ratified by New Zealand) requires that all wetlands be managed to maintain their ecological integrity.

The rarity of wetlands nationally does not necessarily make all wetlands significant. There is significant case law available on methodology for identifying ecological significance of wetlands. See for example *Minister for Conservation v Western Bay or Plenty DC* A071/01 and *Mighty River Power Ltd v Waikato RC* A146/01.

Degraded waterbodies

The third requirement is the enhancement of over-allocated waterbodies. This does not require that all waterbodies that are degraded be enhanced. Rather, it focuses on those where the degradation has resulted in the waterbody being "over-allocated" as defined in the NPS. Section 2.2 provides guidance on the identification of over-allocation.

Over-allocation has occurred where allocations are not consistent with the objective or limit set for the waterbody. Those objectives will be identified by regional councils, along with targets for addressing over-allocation. The target-setting process will be at a catchment scale (Policies A1 and A2).

The RMA definition of "contamination" includes all discharges that change the physical, chemical or biological condition of the receiving environment. However, Objective A2 restricts the scope of enhancing the quality of degraded fresh water to only those situations where human activity is the cause of degradation. This recognises that fresh water may be degraded by factors that are not influenced by human activity (eg, geothermal discharges). These natural state effects are not covered – only the effects of human activities are sought to be addressed through objectives, limits and targets. The concept of over-allocation applies to both water takes and water quality.

Objective A2 will be given effect to through plan changes and, in particular, implementation of Policies A1–A3.

Regional response	**Territorial response**
In setting regional freshwater objectives and limits under Policy A1, and in managing discharges under Policy A3, regional councils will need to identify and protect outstanding freshwater bodies, identify and protect significant values of wetlands, and ensure over-allocated waterbodies are not further degraded. Objective A2 will be a relevant consideration in consent decision-making.	Objective A2 will be a relevant consideration in consent and Notice of Requirement decision-making.

Policy A1

By every regional council making or changing regional plans to the extent needed to ensure the plans:

a. establish freshwater objectives and set freshwater quality limits for all bodies of fresh water in their regions to give effect to the objectives in this national policy statement, having regard to at least the following:

i. the reasonably foreseeable impacts of climate change

ii. the connection between waterbodies

b. establish methods (including rules) to avoid over-allocation.

A major element of the NPSFM is a strengthened limits-based regime.

Regional freshwater objectives

The setting of freshwater objectives (being the intended environmental outcomes or environmental state objectives) is a necessary first step in setting limits. In setting objectives for a region, the provisions of this NPSFM must be given effect to. The national values in the preamble also provide a useful reference for establishing objectives (these are listed in Appendix B). Community values associated with each waterbody as determined through engagement with the community will be important factors in objective setting.

A single, comprehensive objective could be set for the waterbody, encompassing a range of key parameters to address both quality (Policy A1) and quantity (Policy B1). Alternatively, there could be multiple objectives, each covering a narrower scope. In either case, it is obviously important that conflicting objectives are avoided.

Regional freshwater objectives need to describe an intended environmental outcome or identify the environmental state required to enable regional values and priorities to be met, rather than just state what those values and priorities are.

The setting of regional objectives, and hence limits, must be made in the context of environmental, social, cultural and economic values. Councils are expected to engage with their communities, including iwi, about the way their waterbodies are valued to set freshwater objectives and translate those objectives into limits, environmental flows or levels in their regional plans.

Freshwater objectives should be set at a variety of scales and levels of detail. Broad narrative objectives for the region may be set in a regional policy statement. More detailed narrative objectives for a region and/or an individual catchment can be set in regional plans as objectives and policies. Detailed freshwater objectives can be numeric (eg, a desired concentration of a contaminant, or a measure of a marker species) and can be set as policies in regional plans. A narrative objective may outline an acceptable amount of change, an outcome or parameters sought, without containing numeric values. A detailed objective may relate to a part of a waterbody or catchment.

RPSs and regional plans should identify the objectives and policies that are freshwater objectives for the purpose of giving to the NPSFM.

Freshwater limits

Limits are to be set to ensure freshwater objectives established for the relevant waterbody are met, rather than to give effect to more generic RMA or sustainable management objectives. Limits are also discussed in section 2.2.

As a limit is a specific quantifiable amount, it must be given effect to through rules that:

- manage all activities that relate to the limit, without excluding certain activities
- manage allocations outside the limit, for example through activity status.

A limit is "the maximum amount of resource use available, which allows a freshwater objective to be met". A common type of limit would be one that sets the maximum nutrient load entering a waterbody. A limit is not just the maximum resource use a waterbody can withstand; rather it is the maximum resource use to achieve the identified objective for that waterbody. A limit differs from a standard because a standard can be articulated as an objective rather than an actual quantifiable maximum limit. A limit needs to specify an actual maximum. The plan cannot allow for additional resource to be allocated above that maximum limit, even if the objective is still met.

In defining the limit, there will need to be examination of:

- those parameters that need to be managed through the setting of a limit, because they will determine whether the freshwater objective is achieved. In the case of water quality, that includes identifying the key potential contaminants (eg, sediment, nitrogen, phosphorus)
- the limit for each of those contaminants, taking into account any possible interactions between contaminants (eg, it may be necessary to also set limits related to nitrogen/phosphorous ratios)
- the appropriate limit to achieve the objective established by the community, as opposed to the scientific approach to a limit
- where the limit is to be applied (eg, to the input into the lake itself, the streams feeding into the lake, or by managing nutrient inputs to the land in the catchment).

A water quality limit will require a quantifiable total or "allocation" for a resource from all sources of a contaminant. An example of this is Lake Taupo, where the total amount of nitrogen load in the catchment surrounding the lake is cumulatively controlled and limited to achieve the freshwater quality objective for the lake.

Limits can be set at a range of scales to fit regional circumstances, but must cover all waterbodies within a region. Limits can be waterbody-specific, or can cover a number of waterbodies (a default limit). In considering the management unit to which a limit applies, account will need to be taken of connections between waterbodies. For example, a river, its streams and its underlying aquifer may need to be treated as a single unit. Limits may be set by total allocation or in blocks. Limits can be related to activities but, with this approach, limits are required for all activities that contribute to a waterbody's water quality.

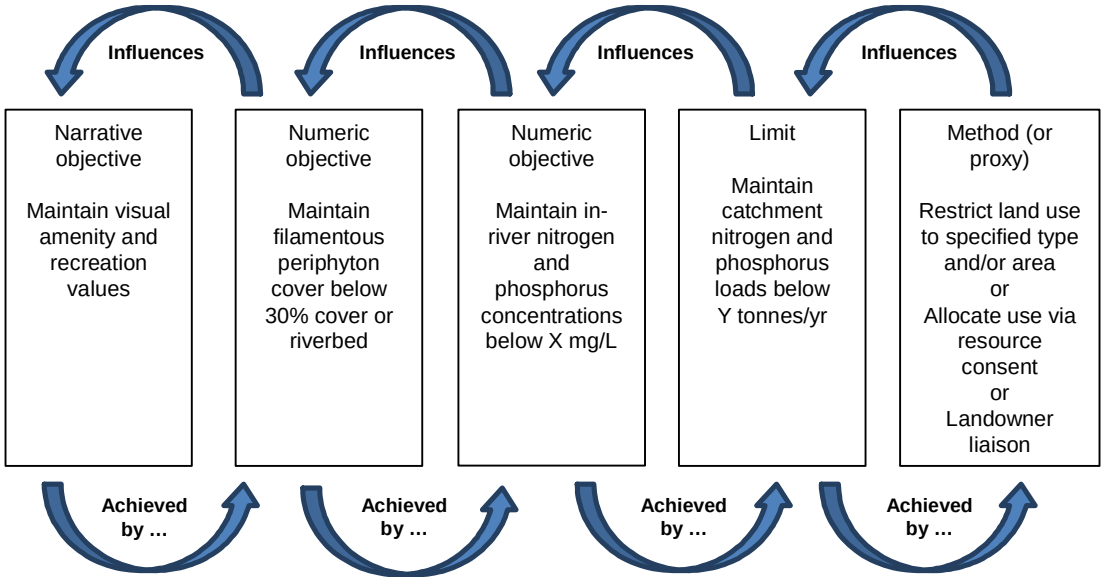
Accurate limit setting can be technically difficult, time-consuming and expensive. It would be appropriate for the regional council to prioritise which catchments (and waterbodies) require a very site-specific, limit-setting process (rather than being able to be addressed through generic limits for that type of waterbody), and which catchments (and waterbodies) would benefit most from earlier setting of limits. Experience nationally and internationally suggests that limit setting, particularly in water quality, will be difficult to get right the first time. Once a limit is set, it is likely to be modified and fine-tuned in subsequent plan changes as better information is obtained.

Policy A1 references giving effect to all objectives of the NPSFM. This clarifies that, when setting water quality limits, other relevant considerations are water quantity, integrated management and iwi values and interests.

Link between objectives, limits and methods

The following diagram illustrates the link between objectives, limits and methods, using examples to illustrate.

Figure 1: Objective limits cascade example[2]



Methods to avoid over-allocation

Policy A1 specifically refers to avoiding over-allocation. This can be done by setting limits in rules in regional plans. The fundamental purpose of a limit is to provide a clear indication of when over-allocation would occur. Because a limit is put in place to ensure a freshwater objective is achieved, where a limit is breached, over-allocation will be deemed to have occurred (whether or not that breach would have positive benefits, or not create adverse effects). Where resources are already over-allocated, local authorities will need to set a target to improve water quality (under Policy A2) until the over-allocation has been corrected. Over-allocation must be avoided, not just mitigated or remedied. Avoiding over-allocation will avoid adverse cumulative effects on water quality.

Reference to methods in Policy A1(b) allows for both regulatory and non-regulatory approaches. Methods or rules can apply to both point source and diffuse discharges. RMA methods will include permitted activities, activity status and allocation through resource consents. Non-regulatory methods could include funding, landowner liaison or voluntary programmes.

Flexibility in approach is available through the methods adopted. The full suite of regulatory and non-regulatory approaches is available as required to suit the individual catchment.

[2] Adapted from Environment Canterbury Technical Report for Hurunui Catchment, 2010.

Reasonably foreseeable impacts of climate change

Communities and businesses require long-term stability in allocations and rules. Therefore, when rules are set, future changes in catchments and climate need to be considered. In setting limits, it is important to consider matters such as:

- changes in frequency and severity of droughts
- rainfall, snow and evaporation rates, which are likely to change water flows and aquifer levels, or worsen or otherwise change existing problems with availability
- changes in temperatures which may influence algal blooms or changes to water quality
- changes in sea level which are likely to affect salination and groundwater quality
- deterioration of water quality in some areas as a result of lower flows in freshwater bodies.

Considerations of the impacts of climate change should be based on the best information available. The starting point is Ministry for the Environment guidelines for local government on climate change (Ministry for the Environment 2008).[3] Where the regional council has already developed region-specific information for climate effects on hydrology (eg, rainfall models), regard should be had to this information in establishing objectives and limits.

Connection between waterbodies

Regional councils are to have regard to the connection between waterbodies in establishing freshwater objectives and limits. Those connections may be physical (eg, a lake and its adjacent wetlands), or through water movements (eg, a river and an aquifer that is partially recharged by the river), or through biodiversity movements (eg, eels may access a lagoon through movement over the barrier between it and the adjacent sea or river). Connections include:

- connections between surface and/or groundwater and wetlands
- connections between surface and hydraulically-connected groundwater.

Coastal environment

Policy A1 does not apply to coastal water or geothermal water. However, a limit may be driven by an objective for water quality in the coastal marine area. The need to protect significant values of coastal wetlands is also required by Objective A2. The Policy does apply to freshwater bodies in the coastal environment;[4] therefore, in planning for freshwater bodies in the coastal environment, regard must also be given to the matters outlined in relevant policies of the NZCPS 2010, in particular Policy 21 (enhancement of water quality), Policy 22 (sedimentation) and Policy 23 (discharge of contaminants). These policies are included in Appendix A.

These policies of the NZCPS 2010 apply to the same waterbodies and subject matter as the NPSFM and both need to be considered and given effect to. Coordinated implementation of both documents will be required in planning for the coastal environment; for example, considering specific NZCPS 2010 requirements about sediment loading, human sewage contamination and stormwater management.

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3 Ministry for the Environment. 2008. *Climate Change Effects and Impacts Assessment: A Guidance Manual for Local Government in New Zealand*. Wellington: Ministry for the Environment.

4 Refer to Policy 1 of the NZCPS for the definition of coastal environment.

Regional response	Territorial response
Existing regional plans containing freshwater provisions will need to be assessed to determine whether they establish freshwater objectives, set limits for all freshwater bodies, and establish methods to avoid over-allocation within the objective framework of the NPSFM, with particular reference to Objectives A1 and A2. In establishing objectives and limits to achieve Objective A2, regional councils will need to identify and protect outstanding freshwater bodies, identify and protect significant values of wetlands, and ensure over-allocated waterbodies are not further degraded. It will be important for communities to recognise the implications of setting objectives which require that water quality be improved above the current state (refer Policy A2). A change to a regional plan(s) must meet the timing requirements of Policy E1. Prioritising tools are available that can help develop a programme to give effect to Policy A1, ensuring improvements with the highest benefit compared to the cost are achieved first.	Where a regional plan introduces provisions that affect land use, territorial authorities must consider the implications of this for district plans. For example, regional land-use controls may encourage land-use change, and it would be appropriate for district plans to then provide appropriately for that change. District plans must not be inconsistent with amended regional plans.

Policy A2

Where waterbodies do not meet the freshwater objectives made pursuant to Policy A1, every regional council is to specify targets and implement methods (either or both regulatory and non-regulatory) to assist the improvement of water quality in the waterbodies, to meet those targets, and within a defined time frame.

Regional councils must adopt a programme of progressive implementation of defined, time-limited stages to enhance the water quality of waterbodies that do not meet the regional freshwater objectives. Policy E1 describes progressive implementation programmes and their time frames.

In relation to over-allocation, a target is “a limit which must be met at a defined time in the future”. This is relevant in setting water quality targets for addressing over-allocation of the waterbody’s assimilative capacity. Management of both point source and diffuse discharges may be required through targets to claw back over-allocation over time.

The final target will be to achieve the limit that will meet the objectives established pursuant to Policy A1. A programme to reduce or claw back allocation will prescribe how to move from the existing resource use level to the desired limit. Intermediate targets (which could be specified in the same quantitative way as a limit) may also be set. Hence a stepped approach over time may be implemented towards the desired objective and limit for the waterbody.

Flexibility in approach is available through the methods adopted (eg, rules, funding, landowner liaison, voluntary programmes). The full suite of regulatory and non-regulatory approaches is available and should be considered. The mix of approaches can be tailored to the individual catchment and can be targeted to local issues, interests and parties. This means that working collaboratively with relevant users and interested parties is important in setting targets, time frames and methods at a catchment level.

For existing resource consents, regional councils are limited in the regulatory methods that can be imposed until those consents expire, or are able to be reviewed in accordance with section 128 of the RMA. Section 128 provides for review where specified in the consent (section 128(1)(a)), and/or where an operative regional plan sets rules for levels, flows, rates or standards and it is appropriate to review the conditions of consent to meet those rules (section 128(1)(b)). Where possible, the planning process should be used for a comprehensive approach to implement this policy rather than solely relying on conditions of consent. However, using conditions could be an interim measure.

Methods established may give effect to both this policy and Policy A1(b) on avoiding over-allocation.

Policy 21 of the NZCPS 2010 (see Appendix A) is relevant in determining an overall approach to improving deteriorated water quality in the coastal environment. A deteriorated waterbody in the coastal environment is where water quality has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats or water-based recreational activities, or is restricting existing uses. Policy 21 includes some specific actions that should be taken, including excluding stock from waterbodies and riparian margins.

Regional response	**Territorial response**
Policy A2 will only be relevant if and when freshwater objectives are not met. Where this policy applies, the regional council must establish a programme of targets, methods and time frames to improve water quality. Non-regulatory methods to give effect to Policy A2 may not need to be specified in the relevant regional plan by a plan change before implementing those methods. Some methods may already be provided for in the plan. Where changes to district plans are an appropriate tool, relevant provisions in the RPS may also be desirable. Policy E1(d) requires that the programme be adopted by 31 December 2012 if the 2014 deadline is unable to be achieved. The Policy is given effect to by adopting a programme and putting in place the methods, not by achieving the targets. The programme does not need to be included in a regional plan.	No response is expected. Where a regional plan implements methods, any provisions that affect land use will need to be considered by territorial authorities, particularly to ensure district plans are not inconsistent with regional plans.

Policy A3

By regional councils:

a. imposing conditions on discharge permits to ensure the limits and targets specified pursuant to Policy A1 and Policy A2 can be met, and

b. where permissible, making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

Regional councils must avoid over-allocating water resources. Policy A3 complements and contributes to the regional limits, targets and methods set under Policies A1 and A2, by ensuring the limits and targets are achieved in assessing resource consent applications for discharges.

Conditions imposed under part (a) of Policy A3 will need to be in the context of the plan provisions and section 107 of the RMA.

Policy A3b is intended to be consistent with section 70(2) of the RMA for best practicable option (BPO) and when it may be imposed, it does not extend section 70(2) of the RMA. "Where permissible" in the policy reflects section 70(2). This requires councils to be satisfied that the inclusion of a rule which provides for the use of BPO is the most efficient and effective means of preventing or minimising adverse effects on the environment.

Limits established under Policy A1 help define the benchmark for what are acceptable effects. Preventing (avoiding) or minimising (remedying or mitigating) are the words used in section 70.

In managing discharges through conditions or rules in the coastal environment, regard must also be given to Policy 23 of the NZCPS 2010 (see Appendix A).

Regional response	**Territorial response**
Once objectives and targets made under Policies A1 and A2 are operative, they will be a relevant consideration in imposing conditions on consents granted. Where necessary to meet objectives and targets, conditions must be imposed on discharge permits. Plans will need to be assessed to determine whether additional BPO provisions are required to give effect to Policy A3. If a change to a regional plan(s) is required to put in place BPO rules, the timing requirements in Policy E1 apply.	No response is required

Policy A4 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy A1 and Policy A2 (freshwater quality limits and targets) have become operative:

"1. When considering any application for a discharge the consent authority must have regard to the following matters:

a. the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water, and

b. the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.

2. This policy applies to the following discharges (including a diffuse discharge by any person or animal):

a. a new discharge, or

b. a change or increase in any discharge –

of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011."

Effect of Policy A4

This transitional policy is inserted into a regional plan by amending the plan in accordance with section 55(2) of the RMA. Policy A4 has specific effect in considering resource consent applications once that amendment is made. Before then, councils must give regard to Policy A4 as part of the NPSFM when considering an application for resource consent (section 104(1)(b)(iii)).

This policy requires that a regional council consider certain matters in assessing and determining an application for a discharge permit. The matters are the equivalent to assessment matters or matters of control, and should be inserted into plans alongside other assessment matters for discharges.

The direction that the consent authority must "have regard to" the listed matters is no stronger than the requirement of section 104 of the RMA to have regard to a number of matters, including any actual or potential effects on the environment, and the NPSFM. This interim policy therefore draws further attention to specific matters relevant to water quality, and the connection between land use and water quality over and above the more general considerations required by the RMA.

Policy A4 does not expressly identify the matters listed in 1(a) and (b) as matters of control or discretion. This policy does not affect activity status and regard to the matters in Policy A4 will be within the parameters of the activity status. The policy will therefore operate differently depending on the activity status. For example, it will not provide a basis for refusing consent for controlled activities, but will provide a platform for imposing conditions of consent (as it amends the matters of control). When Policy A4 is inserted into a plan, councils may wish to help avoid confusion by outlining how the Policy will operate in the context of particular rules and activity status within the plan. The reference to effects that are more than minor is intended to ensure the Policy does not impose significant compliance and opportunity costs where adverse effects may only be minor.

NZCPS 2010 Policy 23 (see Appendix A) also lists matters to which regard must be given and requirements for certain types of discharges in the coastal environment.

What Policy A4 applies to

Policy A4 applies to decisions on discharge permits required under the current regional plan. It does not apply to land-use (or other) applications that may involve a discharge that is authorised by a permitted activity rule unless, or until, they require additional or new consents. The policy applies to new discharges or changes/increases in discharges that are likely to result in more than minor adverse change to the fresh water. The policy does not apply to new consents or replacement consents for the same already consented discharge where there is no change or increase in the discharge.

Policy A4 applies where regional plans need to be amended to give effect to Policies A1 and A2. Where regional plans already give effect to these policies, no amendment to the plan is required – duplication is not necessary.

The Policy requires regional councils to insert the policies directly into regional plans (without using the Schedule 1 process) as soon as practicable after 1 July 2011.

Interim effect

It is acknowledged the process and time frames for setting regional water quality objectives and limits may be significant for some regions. Policy A4 therefore seeks to provide the ability for regional councils to consider matters to ensure the objectives of the NPSFM for water quality can be achieved in the interim.

Regional response	**Territorial response**
Regional council consideration and determination of resource consent applications lodged after 1 July 2011 need to have regard to Policy A4 under section 104(1)(b), pending the inclusion of the Policy in a plan. Regional councils need to amend plans to incorporate the provision as soon as practicable. The most efficient response will usually be to insert the policy into plans using the exact wording in Policy A4. Under sections 55(2) and 55(2A), public notice is to be given once amendments are made.	No response is required.

B Water quantity

Objective B1

To safeguard the life-supporting capacity, ecosystem processes and indigenous species, including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming or diverting of fresh water.	
As with Objective A1, the word “safeguard” requires a proactive response by local authorities to ensure that activities can be undertaken in a sustainable way to provide for the economic, social and cultural wellbeing of people and communities The Objective applies a sustainable approach to freshwater use rather than a no-adverse-effects framework. Freshwater bodies and the aquatic communities they support may vary across a region for different types of freshwater ecosystems. What is required to achieve “safeguarding” of the specified matters will be catchment-specific. Life-supporting capacity may be measured using a range of indicators or parameters. This objective is a relevant consideration for decision-makers when determining resource consent applications to take, use, dam or divert fresh water. The Objective provides for sustainable management, consistent with the purpose of the RMA. The guidance on Objective A1 relates to water quality but generally applies equally to this objective.	
Regional response	**Territorial response**
Regional councils will need to give effect to Objective B1 in RPS and regional plans. RPS and regional plans may already contain freshwater quantity provisions. These provisions will need to be assessed to determine whether they adequately reflect the Objective.	No response is required.

Objective B2

To avoid any further over-allocation of fresh water and phase out existing over-allocation.	
Over-allocation is defined in the NPSFM, and section 2.2 provides guidance on identifying over-allocation. The definition of over-allocation is linked to the assessment of over-allocation in establishing freshwater objectives (refer Policy B1). The geographical and temporal definition of over-allocation will therefore relate to the detail of the freshwater objective for a particular freshwater body. In some catchments across New Zealand, water is currently over-allocated, while in others, over-allocation is not an issue. In some regions, there is recognised over-allocation, where the use of water has created changes in water bodies that prevent them delivering desired community outcomes. But there are also consented over-allocations where the full use of allocations would result in changes to the water body but for the fact that current use is below that which has been consented. Where over-allocation has occurred, this objective seeks the incremental reduction of water use over time until a sustainable level is reached. For example, a sustainable level would be where freshwater objectives and allocation limits set under Policy B1 are met. Where over-allocation has not occurred, the objective requires that measures are put in place to avoid it occurring in future; prevention is better than cure. “Avoiding” over-allocation is more stringent than “avoiding, remedying, or mitigating”. Avoidance would be achieved through setting and implementing limits. The NPSFM intends that methods should be developed to achieve the avoidance of over-allocation. However, this could be achieved through a staged approach, with interim methods to mitigate or remedy (refer to progressive implementation in Policy E). Avoiding over-allocation is a specific obligation of the NPSFM and sets an expectation that adverse cumulative effects on water quantity will be avoided.	
Regional response	**Territorial response**
Regional council’s will need to give effect to Objective B2 in RPS and regional plans. This will be achieved by implementing the policies in section B of the NPSFM, particularly Policies B5 and B6. In setting freshwater objectives and limits under Policy B1, regional councils will be able to identify over-allocated catchments.	No response is required.

Objective B3

To improve and maximise the efficient allocation and efficient use of water.	
The phrase “to improve” indicates measures currently in place to advance efficient allocation and use of water may not be sufficient. Efficient allocation and efficient use of water will ensure maximum benefit is gained from using the resource. Measures of both efficient use and efficient allocation are needed to ensure these are being delivered. Efficient use may involve: • not wasting water; ie, ensuring that all water used is delivering the intended benefit • using the most efficient available technology • reducing the need for water by changing the way benefits are achieved. For example, changing crop varieties to one that requires less irrigation but delivers the same economic benefits • changing the timing of water use to better fit with water availability and minimise the use of higher value water. For example, reduce use of water at times of low flow. Efficient allocation may involve: • ensuring processes used to allocate water are efficient, by selecting the optimal mechanism for the circumstances • ensuring that scarce water is directed to the highest value uses, taking account of issues of fairness and equity • providing an appropriate balance between the need for users to have certainty of allocation over time, the need for the community to retain the ability to adjust allocations to improve outcomes, and the need to allow new water users to have an opportunity to gain an allocation where the resource is already fully allocated • ensuring efficient use • taking into account environmental, economic, social and cultural interests, and how these may change over time • providing an allocation where the rights and responsibilities of the recipient are clearly defined. Commentary on the meaning of technical, economic and dynamic efficiency in achieving water efficiency is provided for Policies B2, B3 and B4. Information provided by significant water users under the Resource Management (Measurements and Reporting of Water Takes) Regulations 2010 will help provide robust information for implementing this Objective. Improvements in the efficiency with which water is allocated will result in New Zealanders obtaining greater value from the country’s water resources over time.	
Regional response	**Territorial response**
Objective B3 will be given effect to by implementing policies in section B of the NPS, particularly Policies B2, B3 and B4.	No response is required.

Objective B4

To protect significant values of wetlands.	
Guidance provided for Objective A2 on protecting the significant values of wetlands is relevant for both water quality and water quantity.	
Regional response	**Territorial response**
Objective B4 will be given effect to by implementing policies in section B of the NPSFM, particularly Policy B1. Depending on the values of the wetland, limit setting alone may not be enough to protect the wetland and other measures will also be required.	Objective B4 will be a relevant consideration in consent and Notice of Requirement decision-making.

Policy B1

By every regional council making or changing regional plans to the extent needed to ensure the plans establish freshwater objectives and set environmental flows and/or levels for all bodies of fresh water in its region (except ponds and naturally ephemeral waterbodies) to give effect to the objectives in this national policy statement, having regard to at least the following:

a. the reasonably foreseeable impacts of climate change

b. the connection between waterbodies.

A major element of the NPSFM is a strengthened limits-based water management regime. Policy B1 is a critical policy for implementing that regime, alongside Policy A1.

The guidance on Policy A1 generally applies equally to this Policy.

A strengthened limits-based water management regime should: improve consenting efficiency; provide certainty in supply; avoid the need to reduce or claw back over-allocation in future; and maintain ecosystem services that all water users rely on – for example, the provision of good drinking water quality for public health.

Establishing regional freshwater objectives and environmental flows/levels

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 require significant water takes to be measured and the results reported to the relevant regional council. These Regulations will provide councils with more accurate information about water use and enable consistent measuring and reporting of actual water use across regions. This information will be able to be used in the assessment of water availability and use discussed above.

Where insufficient information is available, a conservative approach could be taken in the short term (eg, through the use of a default limit) while information is gathered to inform the setting of environmental flows (limits) across a catchment. In keeping with Policy E1 of the NPSFM, such an approach needs to be part of a time-limited, staged implementation that is publicly reported on every year and fully implemented by 2030.

Examples of objectives, limits and methods

The guidance under Policy A1 relating to objectives, limits and methods is equally applicable to this Policy. The limits (both the allocation limit and flow aspects) can be variable to reflect seasonal or other factors, as long as the variation is set out quantitatively and the variable limits are consistent with the objectives.

Additional methods may also be required to meet the numeric objective, in addition to the limit. These may be non-regulatory; for example a riparian planting programme.

An example of a narrative objective for a river or stream could be: *Maintain sufficient water flow to protect native fish.*

An example of a numeric objective to achieve this might be: *Maintain sufficient flow to provide 90 per cent habitat retention for adult blue-gilled bullies.*

An example of an environmental flow to achieve this could be: *The allocation limit is Y litres per second and water takes must cease when flows reach the minimum flow of Z litres per second.*

Connection between waterbodies

Guidance under Policy A1 about connections between waterbodies applies equally to this Policy.

Coastal water and other exclusions

Policy B1 does not apply to coastal water or geothermal water, or to ponds or naturally ephemeral waterbodies.

Progressive implementation

Requiring environmental flows and/or levels to be set in all waterbodies in a region requires a significant body of work. A number of regional councils have already made significant progress in setting flows and levels for some waterbodies in their regions. In regions where significant work has not been progressed, the work can, in accordance with Policy E of the NPSFM, be undertaken in a progressive manner, provided the implementation programme is publicly notified and reported on annually. In regions where significant work has not progressed, as a first step it may also be appropriate to set default limits for small waterbodies or those that are not under allocation pressure.

Through the Fresh Start for Fresh Water programme, a range of mechanisms and tools will be developed over time by the Ministry to help councils implement the NPSFM. Draft guidance is currently available on ecological flows and technical methods (refer section 1.5 of this guidance).

Regional response	**Territorial response**
Existing regional plans containing freshwater provisions will need to be assessed to determine whether they establish objectives, set flows/levels and allocation limits for all freshwater bodies, and will need to be changed as necessary to give effect to the policy. Policy E1 sets out the time frames within which this work must be done.	Where a RPS or regional plan introduces provisions to implement this policy that affect land use, territorial authorities must consider the implications for district plans. District plans must give effect to the RPS and not be inconsistent with amended regional plans.

Policy B2

By every regional council making or changing regional plans to the extent needed to provide for the efficient allocation of fresh water to activities, within the limits set to give effect to Policy B1.

Guidance on Objective B3 provides comment on “efficient allocation”.

The current ‘first in, first served’ approach to water allocation presents challenges as the amount of available water in a catchment reduces.

Limits set through the implementation of Policy B1 will define how much of a particular water resource is available for allocation. Policy B2 seeks to ensure the available resource is allocated efficiently.

The reference to Policy B1 is intended to recognise that allocation of fresh water must not exceed the limits that have been set under that Policy.

Under section 30 of the RMA, regional councils have the function of establishing rules in regional plans to allocate the taking and use of water, including the allocation of that water to types of activities.

Thus, Policy B1 requires the setting of limits and allocation of fresh water; while Policy B2 requires the allocation required by Policy B1 to be efficient. Neither policy requires the allocation of fresh water to particular activities, but councils have the ability to do so in accordance with section 30(4)(e) of the RMA if they and their community so wish.

Efficient allocation of water is expected to vary according to regional differences in water availability, regional differences in the types of activities that use or affect fresh water in a region, and the values that communities place on these aspects.

The intention is for decisions on allocation efficiency to be made in plans, not through consents. This enables all takes, consented or otherwise, to be accounted for in providing for efficient allocation.

Regional councils with over-allocated catchments may be able to consider a range of options to review and reduce allocations. These include: reallocation; or progressive reduction in the volumes of water consented to be taken over time (sinking lid); or common expiry dates within the catchment.

Regional response	**Territorial response**
Existing regional plans containing freshwater provisions will need to be assessed to determine whether they will result in efficient allocation, and changed as necessary to give effect to Policy B2. Policy E1 sets out time frames within which this work must be done.	No response is required.

Policy B3

By every regional council making or changing regional plans to the extent needed to ensure the plans state criteria by which applications for approval of transfers of water take permits are to be decided, including to improve and maximise the efficient allocation of water.	
Efficiency of allocation is discussed further under Objective B3. Policy B3 seeks to ensure councils' approach to transfers of water take permits contributes to the efficient allocation of water; and, by implication, the achievement of freshwater objectives and compliance with limits. Transfers may be appropriate where the person/company undertaking the relevant activity changes, or to allow the movement of water from one user/use to another. Shifting allocations over time recognises that fresh water may be valued differently at different times by different parties. Regional councils are required to state in regional plans their assessment criteria for approving the transfer of water take permits in order to improve and maximise the efficient use of water. The NPSFM seeks to encourage appropriate transfers by increasing certainty and removing unnecessary administrative barriers or inefficiencies. Policy B3 is subject to the provisions of the Act, including sections 30 and 136. For example, the matters specified in section 104, and the effects of the transfer, must be considered under section 136(4)(b)(ii). Policy B3's focus on transfer is anticipated as the first step in creating a greater uptake of transfer of consents to maximise efficient allocation. The broader area of 'dynamic efficiency' is considered to provide opportunities for new approaches in trading and transfer systems that enable appropriate consideration of both environmental and economic outcomes. For example, short consent terms may help achieve dynamic efficiency and enable regular review, but would not always be economically efficient for investment.	
Regional response	**Territorial response**
Review existing plans and, if necessary, change these or provide new plan provisions to give effect to Policy B3. Policy E1 sets out the relevant time frame for that work.	No response is required.

Policy B4

By every regional council identifying methods in regional plans to encourage the efficient use of water.	
Policy B4 is related to technical efficiency – the rate at which resources, capital and labour are converted to goods. More goods produced for the same amount of fresh water equates to a higher technical efficiency in water use. Efficiency of use is discussed further under Objective B3. The reference to methods allows for the use of both regulatory and non-regulatory methods. Examples of non-regulatory methods already used in some regions are: council/industry partnerships; and voluntary agreement to targets, such as percentage efficiency targets for certain land uses or municipal water supplies. Examples of regulatory methods are: a different status of activity based on the level of efficiency demonstrated for the activity (eg, an irrigation application); or a requirement to develop a conservation/efficiency plan. Because Policy B4 specifically directs the inclusion of methods in regional plans, resource consents and decision-making related to the use of water may be indirectly or directly affected.	
Regional response	**Territorial response**
Existing plans containing provisions about the efficient use of water should be assessed to determine if they adequately give effect to Policy B4, and, if necessary, changes made. Policy E1 sets out time frame requirements.	No response is required.

Policy B5

By every regional council ensuring that no decision will likely result in future over-allocation – including managing fresh water so that the aggregate of all amounts of fresh water in a waterbody that are authorised to be taken, used, dammed or diverted – does not over-allocate the water in the waterbody.

Policy B5 is fundamentally important to avoiding further over-allocation as sought by Objective B2. This Policy recognises a significant cause of over-allocation is the cumulative effects of multiple decisions, and specifically directs attention to that issue.

Freshwater objectives and limits (required by Policy B1) will ensure the over-allocation threshold is clear to decision-makers. Good information on current allocations will be needed to determine whether over-allocation has occurred, or would occur if further activities are authorised.

Limits and determining over-allocation need to account for all takes, whether by consented or permitted activities (ie, including section 14(3)(b) takes). Permitted activities can make up a significant quantity of cumulative takes from a waterbody. For example, takes for stock water, domestic use or fire fighting. Councils will also need to take into account the effects of permitted land uses that may change water yield from a catchment (eg, forestry plantings) or aquifer recharging, and effects of climate change on water availability.

The use of the phrase "will likely result" requires a precautionary approach to future-proof allocation decisions that do not result in over-allocation. For example, to take account of the reasonably foreseeable impacts of climate change. During the consenting process, decisions about resource use should have due regard to reliable new information about the freshwater resource that is proposed to be used, to demonstrate that the allocation limit is not exceeded. Information presented as part of the consenting process may support a change of the default limit in the particular freshwater resource if it demonstrates that the current limit does not match well to the relevant objective. However, changing the limit (or the underlying objective) will require a plan change.

Although Policy B5 does not specifically direct regional councils to change their plans, it is likely that this Policy will result in a need for regional plan rules and the activity status of activities that exceed allocation limits to be set.

Regional response	Territorial response
Existing plans containing provisions regarding decision-making and/or over-allocation and/or cumulative effects relating to fresh water should be assessed to determine if they adequately give effect to Policy B5, and be changed if necessary. Policy E1 sets out time frame requirements. Regional councils considering and determining resource consent applications need to have regard to this Policy.	No response is required.

Policy B6

By every regional council setting a defined time frame and methods in regional plans by which over-allocation must be phased out, including by reviewing water permits and consents to help ensure the total amount of water allocated in the waterbody is reduced to the level set to give effect to Policy B1.

Policy B6 seeks to reduce over-allocation where it has already occurred.

Regional councils are limited in the regulatory methods that can be imposed on existing resource consents until those consents expire, or are able to be reviewed in accordance with section 128 of the RMA. Section 128 provides for review where specified in the consent (section 128(1)(a)), and where an operative regional plan sets rules for levels, flows, rates or standards and it is appropriate to review the conditions of consent to meet those rules (section 128(1)(b)). Where a review is undertaken pursuant to the terms of a review condition for a specific consent, the permissible scope of the review may be limited.

Non-regulatory methods and voluntary programmes could be implemented for existing resource consents, particularly where these do not have review conditions or there will be a longer lead time to achieve operative rules for the purpose of section 128 (1)(b).

As for Policy B5, over-allocation relates to all takes – consented or otherwise. This may include permitted activities that contribute to existing over-allocation, including land uses that affect water yield.

In seeking to achieve Policy B6, regional councils are required to determine an appropriate time frame and methods for reducing over-allocation. This provision to set an appropriate time frame recognises that the reduction in water available for use over time (as may be necessary to claw back over-allocation) is likely to have social, environmental, cultural and economic impacts that need to be balanced across a catchment or region.

Regional response	Territorial response
Existing plans containing provisions regarding over-allocation and/or water permit reviews should be assessed to determine if they adequately give effect to Policy B6, and, if necessary, changed or new plans formed. Policy E1 sets out time frame requirements.	No response is required.

Policy B7 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy B1 (allocation limits), Policy B2 (allocation), and Policy B6 (over-allocation) have become operative:

"1. When considering any application the consent authority must have regard to the following matters:

a. the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem, and

b. the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.

2. This policy applies to:

a. any new activity, and

b. any change in the character, intensity or scale of any established activity –

that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011."

Effect of Policy B7

This transitional Policy is inserted into all regional plans using Section 55(2) of the RMA until such time as the relevant Schedule 1 processes make operative the objectives, policies, methods or other measures that give effect to policies B1, B2 and B6 of the NPSFM. The provisions of the plan would then influence the consideration of resource consent applications. Before the amendment under section 55(2) is made to the regional plan, regional councils must have regard to Policy B7 in considering an application for resource consent (section 104(1)(b)(iii)).

Policy B7 requires that the regional council consider certain matters in assessing and determining an application for consent. The matters are the equivalent to assessment matters or matters of control and should be inserted into plans alongside them.

The direction that the consent authority must "have regard to" the listed matters is no stronger than the requirement of section 104 of the RMA to have regard to a number of matters, including any actual or potential effects on the environment, and the relevant provisions of the NPSFM. This interim Policy therefore draws further attention to specific matters relevant to water quality, and the connection between land use and water quality over and above the more general considerations required by the RMA.

What Policy B7 apples to

Policy B7 applies to consideration of applications where resource consent is required under the current regional plan. The Policy does not apply to permitted activities or existing activities unless, or until, they require additional or new consents. The Policy applies to a new or changed/increased activity that is likely to result in more than minor adverse change in the natural variability of flows or levels of fresh water. The Policy does not apply to new consents or replacement consents for the same already consented activity where there is no change in character, intensity or scale. The Policy does not apply where the activity involves only minor adverse change in the flow or level of fresh water.

Policy B7 does not expressly identify the matters listed in 1(a) and (b) as matters of control or discretion; however, this is the effect of the Policy. This Policy does not affect activity status, and regard to the matters in Policy B7 will be within the parameters of the activity status. The Policy will operate differently depending on the activity status. For example, for controlled activities they will not provide a basis for refusing consent, but for a non-complying activity or discretionary activity they may. In all cases they will provide a platform for imposing conditions of consent. When Policy B7 is inserted into a plan, a council may wish to outline how it will operate in the context of the plan's particular rules and activity status, to help avoid confusion.

Interim effect

Policy B7 is included to manage activities that adversely affect freshwater resources while regional plan changes required by the NPSFM are implemented (ie, it is an interim measure). It is acknowledged that the process and time frames for setting water quantity objectives and limits may be significant for some regions. This Policy therefore seeks to provide the ability for regional councils to consider matters to ensure the objectives of the NPSFM for water quantity can be achieved in the interim.

Policy B7 applies where regional plans need to be amended to give effect to policies B1, B2 and B6 of the NPSFM. Where regional plans already give effect to these policies, no amendment to the plan is required – duplication is not necessary.

The Policy requires regional councils to insert the policies directly into regional plans (without using the Schedule 1 process) as soon as practicable after 1 July 2011.

Regional response	**Territorial response**
Regional council officers, and panels or commissioners considering and determining resource consent applications lodged after 1 July 2011, need to have regard to Policy B7 under section 104(1)(b), pending the inclusion of the Policy in a plan. Regional councils need to amend the plan to incorporate the provision as soon as practicable. The most efficient response will usually be to insert the policy into the plan using the exact wording in B7. Under section 55(2) public notice is to be given once amendments are made.	No response is required.

C Integrated management

Objective C1

To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.	
The objective of integrated management is integral to the NPSFM. Objective C1 recognises the interconnections between the conditions in a catchment (eg, vegetation cover, nutrient inputs, changes in soils, erosion, etc) and the condition of freshwater systems, as well as the interconnections between those systems and the receiving coastal environment. The importance of integration is supported by provisions of the RMA and specific functions for regional councils, including sections 30(1)(a), 30(1)(c), 30(1)(g) and 59, and functions for territorial authorities in integrated management of the effects of land use in section 31(1)(a). While the RMA clearly sets out functions for regional councils, the objective of the NPSFM is not just to achieve integrated management, but to improve the integrated management of fresh water and land use and associated interactions. The baseline and measure for "improvement" will be set through regional councils assessing their own regional situation, approaches and provisions to give effect to Policies C1 and C2. Policy 4 in the NZCPS 2010 is also relevant to the implementation of Objective C1. Recent technical work has highlighted the potential significance of freshwater inputs to estuaries.[5] Objective C1 requires collaboration between regional councils and territorial authorities to meet all freshwater objectives.	
Regional response	**Territorial response**
Regional policy statements and plans already contain fresh water, land use and integrated management provisions. These provisions will need to be assessed to determine whether they adequately reflect the objective sought. Regional councils will need to give effect to Objective C1 in any changes to RPS and regional plans. Regional councils will need to work collaboratively with territorial authorities to give effect to the objective.	Objective C1 is relevant for territorial authorities in considering the effects of land use on freshwater quality and water yields. For example, the effects of rural land use (eg, dairying, cropping) or the effects of residential development. Policies C1 and C2 do not require territorial authorities to amend plans, but amendment may be necessary to ensure district plans give effect to amended RPS and are not inconsistent with regional plans. Objective C1 will be relevant in undertaking district plan reviews for the territorial authorities' integrated management function under section 31(1). Territorial authorities will need to work with regional councils to collaboratively give effect to the objective. Objective C1 will be a relevant consideration in consent decision-making for land use and subdivision.

[5] NIWA, 2009. A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report No. 37.*

Policy C1

By every regional council managing fresh water and land use and development in catchments in an integrated and sustainable way, so as to avoid, remedy or mitigate adverse effects, including cumulative effects.

The focus of Policy C1 is on planning rather than consenting.

The policy anticipates a catchment management approach in managing the interactions between land and water. It emphasises the need for integration between the management of land and water, as well as the coastal environment. Regional councils are the lead agencies and should use all functions available in section 30 of the RMA to achieve this. Policy C1 specifically requires regional councils to achieve integrated management of fresh water, land use and development.

Under the umbrella of Objective C1, improved integrated management of land use, water quality and quantity is expected, as is integration with the management of the coastal environment. This will require the regional council to look at methods it can introduce to manage the land-use impacts on water quality and quantity. These include, nutrient controls, management of impervious surfaces, management of stormwater, management of erosion and sediment input, and management of land uses that alter water yield. It will also require integration with territorial authority management of land use. For example, rural activity conversions and residential development or earthworks that may affect freshwater quality. Integration and consistency of approach across different regional and territorial planning instruments and programmes is required.

Policy 4, 22 and 23 of the NZCPS 2010 (refer Appendix A) are relevant in determining an approach to improving integrated management within the coastal environment. Policy 4 of the NZCPS 2010 requires councils to provide for integrated management in the coastal environment and for activities that affect the coastal environment. Policies 22 and 23 require consideration of the impact of land use on coastal water and consideration of the integrated management of catchments and stormwater networks.

These policies of the NZCPS 2010 apply to the same waterbodies and subject matter as the NPSFM, and both need to be considered and given effect to. Coordinated implementation of both documents will be required and it is not expected the policies of the NZCPS 2010 will result in different approaches to integrated management in the coastal environment. Rather, councils will need to specifically have regard to certain matters in managing land use and development, such as considering management of sediment loading and stormwater.

Regional response	Territorial response
Regional councils will need to give effect to Policy C1 in RPS and regional plans. Existing regional plans will contain provisions that contribute to achieving integrated management. Freshwater and land-use provisions will need to be assessed to determine whether they establish objectives, policies and methods to fully achieve integrated management, including avoiding, remedying and mitigating cumulative effects, and, if necessary, be changed or supplemented. Coordination and collaboration with territorial authorities will be required to give effect to Policy C1. This policy will also be a relevant consideration in resource consent decision-making.	Territorial authorities will need to work with regional councils to collaboratively give effect to Policy C1. District plans may need to give effect to amended RPS and not be inconsistent with amended regional plans.

Policy C2

By every regional council making or changing regional policy statements to the extent needed to provide for the integrated management of the effects of the use and development of land on fresh water, including encouraging the coordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure.
Policy C2 reinforces the existing function of regional councils in section 30 of the RMA, and requires them to specifically provide for integrated management of land use and fresh water in regional policy statements. The policy recognises the relationship between land use and fresh water, as well as the role of regional councils in managing land use. The policy recognises the relationship between management of land use, water and provision of infrastructure (all types), and the need to plan at a regional scale. It also requires integration with territorial authority management of land use and provision of infrastructure. Policies 4, 6, 22 and 23(4)(C) of the NZCPS 2010 (refer Appendix A) are relevant in implementing Policy C2 in the coastal environment. Policy 4 requires councils to coordinate management and control of activities that cross administrative boundaries, and to work collaboratively with other agencies. As for Policy C1, it relates to some of the same locations and subject matter as the NZCPS 2010 policies. This reinforces the collaborative approach anticipated under Policy C1 of the NPSFM, rather than creating a different approach to integrated management in the coastal environment.

Regional response	Territorial response
Regional councils will need to assess their RPS to determine if it provides for integrated management to the extent outlined in Policy C2. If necessary, the RPS will need to be changed to specifically provide for coordination and sequencing of growth, land use/development, and provision of infrastructure, so far as they relate to managing the effects of use and development of land on fresh water. This will require collaboration with territorial authorities. Regional plans may need to be changed to give effect to the amended RPS. Policy C2 will also be a relevant consideration in resource consent decision-making.	Coordination and collaboration with regional councils will be required to give effect to Policy C2. District plans will need to give effect to amended RPS and not be inconsistent with amended regional plans.

D Tāngata whenua roles and interests

Objective D1

To provide for the involvement of iwi and hapū, and to ensure that tāngata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.	
Objective D1 supports and clarifies the requirements of the RMA. It provides for the involvement of iwi and hapū and ensures tāngata whenua values and interests are identified and reflected in the management of, and decision-making for, freshwater planning. Changes may be required to the processes followed by councils when they engage with iwi and hapū in giving effect to the objectives and policies under the NPSFM. The NZCPS contains Objective 3 and Policy 2 that also relate to tāngata whenua roles and interests in the coastal environment. Refer to comments under Policy D1. The terms "provide for" and "to ensure" infer an imperative for action on the part of councils in relation to this Objective. The NPSFM Objective relates to involvement generally in freshwater management, and in decision-making in so far as it relates to freshwater planning. Existing RMA requirements still apply to other types of decision-making, for example in respect of consenting notification requirements. The term "involvement" allows for different approaches to hapū and iwi roles in the management of fresh water. Regional councils can engage with iwi and hapū so that both parties can equally determine what "involvement" in freshwater management might look like.	
Regional response	**Territorial response**
Councils will need to review the processes they use to engage with iwi and hapū on freshwater management as outlined in Policy D1, and decisions on planning instruments.	Councils will need to review the processes they use to engage with iwi and hapū on values and interests relevant to freshwater management as outlined in Policy D1, and decisions on planning instruments.

Policy D1

Local authorities shall take reasonable steps to:

a. involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region

b. work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region, and

c. reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

Policy D1 refers to "local authorities" and hence applies to both regional and territorial authorities in relation to their water management functions within the scope of Objective D1. The Policy does not require amendment to plans or writing council process into a policy. It has immediate effect and is relevant to local authority work programmes to give effect to the NPSFM.

To "take reasonable steps" anticipates councils will provide appropriate opportunities for the iwi and hapū to be involved in implementing the NPSFM based on current good practice. What is reasonable steps will depend on the local context and available resourcing for both the council and iwi and hapū. Options beyond the RMA can be considered; for example, Local Government Act committee arrangements or memoranda of understanding. Plan provisions may be necessary in some cases, particularly to ensure that appropriate weight can be given to identified values.

The NPSFM refers to iwi and hapū rather than tāngata whenua. The definition of tāngata whenua in the RMA includes iwi or hapū. The more explicit reference to iwi and hapū in the NPSFM is not intended to expand the nature of who councils should involve and work with in implementing the NPSFM; it clarifies that councils' obligations with regard to tāngata whenua and fresh water are to work with local iwi and hapū. Who the council involves and works with will depend on local circumstances.

This policy does not override or alter any existing or future obligations councils have under Treaty settlements.

Key words to consider in implementing this policy are:

Involve: This policy does not dictate the form of iwi and hapū involvement in the management of, and decision-making regarding, fresh water. There is a range of ways that iwi and hāpu can be involved in the management of fresh water under existing legislation. Involvement may include consultation but may also include other methods for iwi and hapū to participate in freshwater management. Methods can include, but are not limited to, joint management agreements, joint committees, decision-making roles, relationship agreements and statutory acknowledgements.

Work with: Policy D1 (b) clarifies that councils should work with iwi and hapū and should not identify values and interests on their behalf. Council can work with iwi and hapū in a number of ways including, but not limited to: seeking technical advice and input to inform plan and/or plan change preparation, commission a report from iwi or hapū, use Mātauranga Māori to inform policy decisions, and include members of relevant iwi or hapū on plan hearing committees.

Reflect: Policy D1 requires that local authorities do more than just have regard to tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems. Policy-making processes need to consider tāngata whenua values and interests and take them into account in freshwater management decisions. Taking into account those values and interests is more than "having regard" to them but does not require a council to give effect to them. Councils need to be transparent in their decisions and demonstrate how they have reflected the values and interests. The interests of tāngata whenua include all four wellbeings and may include commercial interests of tāngata whenua.

The actions of involve, work with, and reflect are all under the heading of "reasonable steps" noted above.

The NZCPS 2010 contains Objective 3 and Policies 2, 21(e) and 23(3) that also relate to tāngata whenua roles and interests in the coastal environment (refer Appendix A). While NZCPS 2010 Objective 3 and Policy 2 and NPSFM Objective D1 and Policy D1 use different terminology in places, they are compatible provisions, and implementation of both should be achieved for fresh water in the coastal environment. It is likely that if the more detailed provisions in Policy 2 of NZCPS 2010 are given effect to for the part of a waterbody that is within the coastal environment, the same approach would also satisfy the provisions of the NPSFM.

Regional response	**Territorial response**
Response to Policy D1 is not a one-off review and requires an ongoing response.	Response to Policy D1 is not a one-off review and requires an ongoing response.
Councils will need to review the processes and policies related to involving iwi and hapū for matters within the scope of Objective D1, and work with iwi and hapū to reflect tāngata whenua values and interests in decision-making regarding fresh water and freshwater ecosystems. Changes will need to be made to processes that do not give effect to Objective D1.	Councils will need to review their processes and policies related to involving iwi and hapū. They will need to work with iwi and hapū and reflect tāngata whenua values and interests in decision-making relevant to fresh water, within the scope of Objective D1, to ensure that processes give effect to this Objective. Changes will need to be made to any processes that do not.
The Policy does not specifically require amendment to the councils' policy statements or plans, but this may be an appropriate response.	The Policy does not specifically require amendment to the councils' plans, but this may be an appropriate response.

E Progressive implementation programme

Policy E1

This policy applies to the implementation by a regional council of a policy of this national policy statement.

Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2030.

Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2014, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2030.

Any programme of time-limited stages is to be formally adopted by the council within 18 months of the date of gazetting of this national policy statement, and publicly notified.

Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.

Policy E1 outlines the expectations and time frames for regional councils to implement the policies in the NPSFM.

All implementation is expected "as promptly as is reasonable in the circumstances". It is expected that considerable progress will have been made in all regions well before 2030, and even where full implementation is not possible by December 2014, some progress in dealing with easier issues is expected before then. This Policy also recognises that each region will have different circumstances in determining when and how to respond to this NPS. For some regions, this means that implementation will be achieved well before 2030.

Where policies of the NPSFM require regional councils to make or change RPS or regional plans, these changes must be fully operative for this Policy to be considered implemented.

All existing regional plans are likely to give effect to some provisions of the NPSFM, but none currently give full effect to the NPSFM. Where a change to the RPS or regional plans is required, section 55(2C) requires the Schedule 1 process to be used (except for Policies A4 and B7). This may involve a series of plan changes. The NPSFM does not need to be given effect to with one plan change, nor in the first available plan change, if to do so would be unreasonable. Nevertheless, any plan change that is made, including project-specific plan changes, must give effect to the NPSFM in relation to all matters within the scope of that plan change.

The timelines in this policy relate to putting in place the necessary policies, plans and/or methods. The improvements in water quality are not required to be met by the stated times.

While full implementation is required by 31 December 2030, a regional council must either implement the policies in the NPSFM by December 2014 or formally adopt a staged implementation programme. If staged implementation is to be used, the regional council must develop a formal programme setting out the stages and time frames, formally adopt the programme, and publicly notify that the programme has been adopted. The council must do this before 12 December 2012. Preparing and adopting an implementation programme will need to meet Local Government Act 2002 obligations, as it involves resources and priorities and may be a significant part of the council work programme. Public notification of the implementation programme, along with the annual progress reports, are intended to engage the public in the approach and achievements of the council. Annual reporting could be through the annual plan and annual report under the Local Government Act 2002. Similarly, if possible, it would be appropriate for the implementation programme to be part of a council's Long Term Plan.

The options available for implementation recognise the differences in resourcing and in the extent of work that may be required in various regions. Where considerable cost and effort has to be applied in a region to fully achieve the NPSFM, a progressive implementation programme provides scope to identify priorities, resourcing and how the council will respond to the NPSFM's requirements.

An implementation programme may outline:

- the consultation strategy/programme
- the prioritising of plan changes by catchment and/or management issues
- the expected time for key milestones, such as notification of plan changes setting limits, timing for hearings, and timing for any review of consents.

As well as plan changes, the programme may outline other activities, initiatives and methods to be implemented, indicating timing, priorities and resourcing. Examples include consent reviews, capital works initiatives, changes to the council's own work programmes, and/or landowner liaison programmes. Implementation programmes will necessarily be flexible; for example, dates may change.

Engagement with communities and robust durable solutions can take time. This policy recognises the importance of quality rather than quick processes and frameworks, while seeking to ensure rapid progress where this is possible.

Implementation by the end of 2014 is encouraged, to fit with the local authority election cycle. Where a regional council needs to change an RPS or plan to implement a policy, it is acknowledged that this 2014 time frame may not be possible.

Policy E1 does not create a requirement for all objectives and limits under Policies A1, A2, B1 and B2 to be achieved by 2030, although objectives, limits and targets (including time frames for achieving the targets) must be set. In some cases, where there are significant legacy issues and long lag times to be dealt with (ie, nutrients from past land use still in transit to waterbodies), objectives and limits may take longer to achieve.

Regional response	Territorial response
Regional councils should consider all the implementation requirements of the NPSFM in reference to the existing policy framework in the region. This will require an assessment of current freshwater management approaches and whether existing provisions need to be changed or if new provisions are required to implement each policy. Once the scope of work to implement the NPSFM is determined, a work programme can be developed in the context of the resources, priorities, and related work of the individual regional council. The work programme will identify the ability to meet the 2014 timeframe or the need to develop a more detailed progressive implementation programme. The council must adopt and notify a progressive implementation programme before 12 December 2012. Collaboration with territorial authorities on a work programme to give effect to the NPSFM is encouraged.	No response is required. Collaboration with the regional council on a work programme to give effect to the NPSFM is encouraged.

Appendices

A Relevant excerpts from the New Zealand Coastal Policy Statement 2010

Objective 1

To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:

- maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;
- protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and
- maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.

Objective 3

To take account of the principles of the Treaty of Waitangi, recognise the role of tāngata whenua as kaitiaki and provide for tāngata whenua involvement in management of the coastal environment by:

- recognising the ongoing and enduring relationship of tāngata whenua over their lands, rohe and resources;
- promoting meaningful relationships and interactions between tāngata whenua and persons exercising functions and powers under the Act;
- incorporating mātauranga Māori into sustainable management practices; and recognising and protecting characteristics of the coastal environment that are of special value to tāngata whenua.

Policy 2: The Treaty of Waitangi, tāngata whenua and Māori

In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment:

a. recognise that tāngata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;

b. involve iwi authorities or hapū on behalf of tāngata whenua in the preparation of regional policy statements, and plans, by undertaking effective consultation with tāngata whenua; with such consultation to be early, meaningful, and as far as practicable in accordance with tikanga Māori;

c. with the consent of tāngata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori in regional policy statements, in plans, and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes;

d. provide opportunities in appropriate circumstances for Māori involvement in decision making, for example when a consent application or notice of requirement is dealing with cultural localities or issues of cultural significance, and Māori experts, including pūkenga, may have knowledge not otherwise available;

e. take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and

    i. where appropriate incorporate references to, or material from, iwi resource management plans in regional policy statements and in plans; and

    ii. consider providing practical assistance to iwi or hapū who have indicated a wish to develop iwi resource management plans;

f. provide for opportunities for tāngata whenua to exercise kaitiakitanga over waters, forests, lands, and fisheries in the coastal environment through such measures as:

    i. bringing cultural understanding to monitoring of natural resources;

    ii. providing appropriate methods for the management, maintenance and protection of the taonga of tāngata whenua;

    iii. having regard to regulations, rules or bylaws relating to ensuring sustainability of fisheries resources such as taiāpure, mahinga mātaitai or other non commercial Māori customary fishing;

g. in consultation and collaboration with tāngata whenua, working as far as practicable in accordance with tikanga Māori, and recognising that tāngata whenua have the right to choose not to identify places or values of historic, cultural or spiritual significance or special value:

    i. recognise the importance of Māori cultural and heritage values through such methods as historic heritage, landscape and cultural impact assessments; and

ii. provide for the identification, assessment, protection and management of areas or sites of significance or special value to Māori, including by historic analysis and archaeological survey and the development of methods such as alert layers and predictive methodologies for identifying areas of high potential for undiscovered Māori heritage, for example coastal pā or fishing villages.

Policy 4: Integration

Provide for the integrated management of natural and physical resources in the coastal environment, and activities that affect the coastal environment. This requires:

a. co-ordinated management or control of activities within the coastal environment, and which could cross administrative boundaries, particularly:

   i. the local authority boundary between the coastal marine area and land;

   ii. local authority boundaries within the coastal environment, both within the coastal marine area and on land; and

   iii. where hapū or iwi boundaries or rohe cross local authority boundaries;

b. working collaboratively with other bodies and agencies with responsibilities and functions relevant to resource management, such as where land or waters are held or managed for conservation purposes; and

c. particular consideration of situations where:

   i. subdivision, use, or development and its effects above or below the line of mean high water springs will require, or is likely to result in, associated use or development that crosses the line of mean high water springs; or

   ii. public use and enjoyment of public space in the coastal environment is affected, or is likely to be affected; or

   iii. development or land management practices may be affected by physical changes to the coastal environment or potential inundation from coastal hazards, including as a result of climate change; or

   iv. land use activities affect, or are likely to affect, water quality in the coastal environment and marine ecosystems through increasing sedimentation; or

   v. significant adverse cumulative effects are occurring, or can be anticipated.

Policy 21: Enhancement of water quality

Where the quality of water in the coastal environment has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats, or water-based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities, give priority to improving that quality by:

a. identifying such areas of coastal water and waterbodies and including them in plans;

b. including provisions in plans to address improving water quality in the areas identified above;

c. where practicable, restoring water quality to at least a state that can support such activities and ecosystems and natural habitats;

d. requiring that stock are excluded from the coastal marine area, adjoining intertidal areas and other waterbodies and riparian margins in the coastal environment, within a prescribed time frame; and

e. engaging with tāngata whenua to identify areas of coastal waters where they have particular interest, for example in cultural sites, wāhi tapu, other taonga, and values such as mauri, and remedying, or, where remediation is not practicable, mitigating adverse effects on these areas and values.

Policy 22: Sedimentation

1. Assess and monitor sedimentation levels and impacts on the coastal environment.

2. Require that subdivision, use, or development will not result in a significant increase in sedimentation in the coastal marine area, or other coastal water.

3. Control the impacts of vegetation removal on sedimentation including the impacts of harvesting plantation forestry.

4. Reduce sediment loadings in runoff and in stormwater systems through controls on land use activities.

Policy 23: Discharge of contaminants

1. In managing discharges to water in the coastal environment, have particular regard to:
    a. the sensitivity of the receiving environment;
    b. the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded; and
    c. the capacity of the receiving environment to assimilate the contaminants; and:
    d. avoid significant adverse effects on ecosystems and habitats after reasonable mixing;
    e. use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and
    f. minimise adverse effects on the life-supporting capacity of water within a mixing zone.
2. In managing discharge of human sewage, do not allow:
    a. discharge of human sewage directly to water in the coastal environment without treatment; and
    b. the discharge of treated human sewage to water in the coastal environment, unless:
        i. there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and
        ii. informed by an understanding of tāngata whenua values and the effects on them.

3. Objectives, policies and rules in plans which provide for the discharge of treated human sewage into waters of the coastal environment must have been subject to early and meaningful consultation with tāngata whenua.

4. In managing discharges of stormwater take steps to avoid adverse effects of stormwater discharge to water in the coastal environment, on a catchment by catchment basis, by:

    a. avoiding where practicable and otherwise remedying cross contamination of sewage and stormwater systems;

    b. reducing contaminant and sediment loadings in stormwater at source, through contaminant treatment and by controls on land use activities;

    c. promoting integrated management of catchments and stormwater networks; and

    d. promoting design options that reduce flows to stormwater reticulation systems at source.

5. In managing discharges from ports and other marine facilities:

    a. require operators of ports and other marine facilities to take all practicable steps to avoid contamination of coastal waters, substrate, ecosystems and habitats that is more than minor;

    b. require that the disturbance or relocation of contaminated seabed material, other than by the movement of vessels, and the dumping or storage of dredged material does not result in significant adverse effects on water quality or the seabed, substrate, ecosystems or habitats;

    c. require operators of ports, marinas and other relevant marine facilities to provide for the collection of sewage and waste from vessels, and for residues from vessel maintenance to be safely contained and disposed of; and

    d. consider the need for facilities for the collection of sewage and other wastes for recreational and commercial boating.

B National values of fresh water: excerpt from preamble to NPSFM

National values of fresh water

Water is valued for the following uses:

- domestic drinking and washing water
- animal drinking water
- community water supply
- fire fighting
- electricity generation
- commercial and industrial processes
- irrigation
- recreational activities (including waka ama)
- food production and harvesting eg, fish farms and mahinga kai
- transport and access (including tauranga waka)
- cleaning, dilution and disposal of waste.

There are also values that relate to recognising and respecting fresh water's intrinsic values for: safeguarding the life-supporting capacity of water and associated ecosystems; and sustaining its potential to meet the reasonably foreseeable needs of future generations. Examples of these values include:

- the interdependency of the elements of the freshwater cycle
- the natural form, character, functioning and natural processes of waterbodies and margins, including natural flows, velocities, levels, variability and connections
- the natural conditions of fresh water, free from biological or chemical alterations resulting from human activity, so that it is fit for all aspects of its intrinsic values
- healthy ecosystem processes functioning naturally
- healthy ecosystems supporting the diversity of indigenous species in sustainable populations
- cultural and traditional relationships of Māori with fresh water
- historic heritage associations with fresh water
- providing a sense of place for people and communities.

All the values in both lists are important national values of fresh water.

Appendix 4 Relevant Definitions from the National Policy Statement on Freshwater Management and Explanations from the National Policy Statement for Freshwater Management 2011: Implementation Guidance 2011

Note: the explanations from the NPS guide are underlined.

Freshwater objective *describes the intended environmental outcome(s)*

A freshwater objective is the environmental outcome sought for the waterbody. This describes the environmental state required to enable community values and wishes to be achieved. The development of an environmental objective will therefore encompass two steps. First, determining the desired community outcomes; for example, retention of a healthy trout fishery; retention of mauri; ability to swim in the river in summer; ability to use the water for stock watering without treatment; or ability to use the water for municipal water supply with only chlorination. Second, determining what environmental state is needed for those outcomes to be achieved.

In determining community objectives, the list of national values of freshwater set out in the preamble (and in Appendix B) is relevant.

Freshwater objectives can be set at a variety of scales and levels of detail and may be narrative or numeric.

Limit *is the maximum amount of resource use available, which allows a freshwater objective to be met*

A limit is a specific quantifiable amount. Limits can be set at a range of scales to fit regional circumstances. Limits can cover a range of matters, and will clearly specify the maximum or minimum that relates to that matter (eg, maximum cadmium levels entering a waterbody; minimum water levels). A limit may apply to a water quality parameter (the assimilative capacity of waterbodies or cumulative limit below which discharges can be sustainably managed), or a water quantity parameter (limits on take). Limits can be specific to a waterbody or part of a waterbody (eg, blocks or sections of a river), or can cover a number of waterbodies with similar characteristics (a default limit).

Over-allocation *is the situation where the resource:*

a) Has been allocated to users beyond a limit or

b) Is being used to a point where a freshwater objective is no longer being met

This applies to both water quantity and quality.

Setting the freshwater objective and limit establishes the level beyond which over-allocation will occur. Over-allocation occurs when either, or both, of the relevant objective and limit are not being met. This is a measure of when cumulative adverse effects start to occur.

***Target** is a limit which must be met at a defined time in the future. This meaning only applies in the context of over-allocation.*

A target forms part of a staged work programme to work towards the limits that are necessary to achieve the objective.

Appendix 5 Paper by Kate McArthur: Setting Water Quality Limits: Lessons Learnt from Regional Planning in the Manawatu-Whanganui Region (undated)

SETTING WATER QUALITY LIMITS: LESSONS LEARNED FROM REGIONAL PLANNING IN THE MANAWATU-WANGANUI REGION.

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INTRODUCTION

The cumulative effects of resource use are degrading the quality of many New Zealand rivers and lakes. Given the current state of freshwater quality it is timely to consider how we can best utilise the planning framework of the Resource Management Act 1991 (RMA) to improve degraded rivers such as the Manawatu River. Narrative descriptions of desirable water quality outcomes were applied in many first generation regional plans. However, broad narrative standards or objectives are difficult to achieve in practice and measuring the delivery of narrative environmental objectives is also problematic.[1] An alternative freshwater management approach is to translate narrative objectives into numeric objectives and to use these to define water quality limits, such as concentration based standards or catchment load limits and to provide a sound basis for measuring policy success over time through environmental monitoring. However, water quality standards have been used in regional planning for the Manawatu River catchment since 1998. So why, more than a decade later, is water quality in the Manawatu River still among the poorest in New Zealand?[2]

The rules of the Manawatu Catchment Water Quality Regional Plan (The Manawatu Plan, 1998) were an early attempt at using numeric limits within the RMA planning framework. A second generation approach is the newly developed combined regional plan and regional and coastal policy statement for the Manawatu-Wanganui region, known as the One Plan. The One Plan contains numeric targets for all of the regions waters (including the Manawatu River) developed from water quality indicators. These targets are neither objectives nor rules but are linked to water body values through the Plan's policies. The One Plan identifies values for all waters and each value is associated with a narrative management objective. Using a spatial framework of catchment-based water management zones, each zone has defined values and specific water quality targets, developed to provide for the values of that zone. [3]

Defining terminology is useful when discussing limits, standards, targets or indicators for water quality. The recently gazetted National Policy Statement for Freshwater Management (NPS, 2011) defines a limit as the maximum amount of resource use available which allows a freshwater objective to be met. In the author's opinion this is consistent with the way water quality targets apply through the One Plan because the targets in the Plan were developed as numeric thresholds (limits) of acceptable water quality, which would provide for the water values sought by the Plan's objectives. However, the NPS defines a water quality target as a limit which must be met at a defined time in the future and which only applies in the context of over-allocation. The One Plan targets (limits) are not time-bound and apply to all waters, not just those that are over-allocated; therefore they do not fit the NPS definition of a target. This paper uses the term limit to refer to the numeric targets linked to values in the One Plan, in place of the term target, to avoid confusion with the definitions of the NPS. The NPS provides no definition of a standard.[i] The definition used here is consistent with standards applied as rules under s 69 of the Act.

[i] Water quality targets were termed standards in the notified version of the One Plan.

For clarity, the terms used in this paper to define water quality are as follows: **numeric objectives** are measurable objectives within a regional plan or policy statement which describe the intended environmental outcomes; **standards** are numeric limits applied as rules in regional plans under s 69 of the Act; and **limits** are numerical levels of water quality associated with resource use which allow objectives, values or outcomes to be met. Water quality **indicators** are the various measurable parameters that are mechanisms for the application of RMA tools such as limits, standards or in some cases numeric objectives depending on the context.

Environment Canterbury's Natural Resources Regional Plan (NRRP Chapter 4), utilises measurable, numeric objectives and rules containing water quality standards that are linked to achieving those objectives in a hierarchical manner.[4] For example, Objective WQL 1.1 contains numeric values for the maximum percentage of nuisance algal cover of the river bed. To support the objective there are standards for dissolved nitrogen and phosphorus that are linked to the desirable level of algal cover defined by the objective.[5] From a science perspective, the hierarchical approach of numeric rules and objectives is a logical system for the application of water quality limits through regional policies and plans. There are also many planning advantages to numeric objectives and linked water quality standards. For instance, objectives have a life beyond the timeframe of the plan, they are overarching goals to guide the consideration of all activities, including those which can affect water quality but may not necessarily be subject to water quality rules (e.g. water allocation, river engineering activities, forestry or vegetation clearance). Numeric objectives provide clarity about the desired state of water bodies for the community and numeric standards provide some certainty for resource users around the acceptability of activities requiring consent. Numeric objectives linked to values offer good guidance for dealing with non-complying activities that exceed standards, provide a clear basis for monitoring plan performance over time and assist decision makers in dealing with the cumulative effects of resource use on water quality.[6]

The difficulties in setting limits in regional planning

The cumulative effects from agricultural land use are now identified as key concerns for freshwater management in New Zealand.[7] Although some commentators have suggested there are enough tools and mechanisms within the Act to enable councils to deal with cumulative effects,[8] Milne (2008) identified some of the difficulties faced by resource managers in setting limits in plans or through the consent process. Many of these difficulties reflect either a requirement for sufficient information and good science to persuade decision makers to impose limits, or the political difficulties inherent in setting limits on resource use. Despite these difficulties some regional councils have undertaken to set limits to manage cumulative adverse effects on water quality. In addition to the Environment Canterbury example, regional approaches utilising numeric water quality objectives have been included in Environment Waikato's Regional Plan Variation 5 to protect the water quality of Lake Taupo and Environment Bay of Plenty's Regional Water and Land Plan Objective 11 which states a desired trophic level for each of the Rotorua Lakes. All regional councils are now required to set water quality objectives and limits under the Freshwater NPS. A hierarchical system of numeric objectives and rules similar to that now operative in Canterbury, combined with a spatial and values framework such as that underpinning the One Plan for the Manawatu-Wanganui region, provides a robust, defensible method for setting regional water quality limits. This paper concludes by recommending individual steps to develop such a system, informed by an exploration of the advantages and disadvantages of using water quality standards, rules and limits in the Manawatu-Wanganui region.

Considerations for the development of appropriate water quality limits

When comparing systems devised for the development of numerical objectives, standards or limits from water quality indicators there are a number of points for consideration: 1) one size does not fit all (i.e. locally relevant limits are crucial); 2) no system for applying water quality standards and objectives in regional plans will be perfect (i.e. not all the relationships between indicators used for standards and numeric objectives are clear or

simple); and 3) not all possible water quality indicators are appropriate for use at the level of Plan objectives. These considerations are explored in more detail below.

A one-size-fits-all approach to setting limits for freshwater management is unlikely to be locally relevant or defensible, potentially jeopardising the success of numeric objectives and linked standards. This is important when considering the future development of National Environmental Standards for water quality to support the Freshwater NPS. A many-to-many relationship of groups of standards and linked numeric objectives which vary according to different community water body values and different physical catchment characteristics is more likely to be accepted and environmentally relevant. Others have identified the importance of a spatial framework in combination with good science to underpin numeric standards and objectives in regional plans and policies.[9]

The relationships between water quality indicators

Sound science is critical to understanding the ecological interactions between the indicators that can be applied as standards, limits or numeric objectives. Ideally, cause and effect relationships would exist between one or more standards (to control causes through rules) and each of the objectives (defined desirable effects). For example, algal growth on the bed of rivers (known as periphyton) is influenced by river flow, substrate size, stability, light availability, temperature, invertebrate grazers and the concentrations of the plant-available nutrients nitrogen and phosphorus. In simple terms, when all other river conditions are suitable, as nutrient concentrations increase periphyton also increases. Nitrogen and phosphorus standards can be applied in order to achieve a numeric objective which states a desired maximum level of periphyton cover of a river bed.

In reality, simple cause and effect relationships between water quality measures are rare. Rivers and the aquatic communities they support are dynamic, complex ecosystems and water quality variables are often interlinked with each other. Not only can water chemistry affect biological communities but the reverse is also

true; for instance changes in periphyton can influence the physical and chemical properties of water by reducing dissolved oxygen at night and changing pH, affecting the suitability of habitat for fish and invertebrates. These relationships can all be overridden by the impact of river flow and significant events such as floods or droughts. So any freshwater planning system needs to allow for consideration of biophysical complexity, yet be simple enough to enable effective implementation.

Because freshwater ecosystems are complex and multi-stressor relationships and interactions between water quality variables occur, not all water quality indicators will be suitable as numeric objectives in plans. Listed below are five criteria to test the suitability of indicators as numeric objectives. The criteria are: 1) the objective describes an environmental state which can be readily understood by a non-technical audience, 2) the objective is measurable, 3) the objective is defensible, scientifically tested and generally accepted as fit for purpose, 4) the objective responds in a predictable way to resource use or the presence of contaminants, and 5) the objective is directly linked to the values to be achieved.[10]

This paper contrasts two examples of the use of water quality limits and standards in the Manawatu River and recommends a framework to set limits for water quality that encompasses aspects of three regional approaches and integrates the lessons learned from the Manawatu examples. In doing this the water quality limits of the One Plan are tested against the five criteria listed above to determine potentially suitable numeric objectives for the Manawatu River.

The need for water quality limits

The effects of activities on freshwater and our understanding of the issues affecting water quality have changed over recent decades. Degraded water quality resulting from poorly treated industrial and municipal waste has been increasingly superseded by degradation caused by diffuse nutrient enrichment from urban and agricultural sources.[11] The issues have changed because 1) the

treatment of many point source discharges has improved through better regulation and industry standards; 2) agricultural land use has intensified,[12] and 3) our understanding of the issues has improved through better environmental monitoring and continued research.[ii] Freshwater monitoring and research clearly indicates that any environmental gains from reduced point source pollution in New Zealand are overshadowed by increased diffuse pollution.[13]

At national and regional scales the proportion of pastoral land in a catchment is highly correlated with low water clarity and increasing nitrogen and phosphorus concentrations.[14] Sewage and wastewater discharges are still a significant influence on water quality in some areas,[15] although the cumulative effects of diffuse sources of pollution on streams, rivers and lakes are undeniably the most challenging freshwater management issue in New Zealand today.[16] [17] A number of commentators agree that to deal with the cumulative effects of diffuse pollution, regional councils need to undertake the first three of the four critical steps below:

1) Identify the resource,
2) Determine its capacity for use,
3) Establish limits to resource use, [18] and
4) Implement changes in resource use to achieve those limits.

Not only is there an identified environmental need for water quality limits but there is now a statutory requirement for regional councils to give effect to the Freshwater NPS. Policies in the NPS will compel regional councils to undertake the first three steps outlined above by setting water quality objectives, limits and in cases where objectives are not met or resources are over-allocated, to specify targets and implement methods to improve water quality within set timeframes. All of these steps will require continued monitoring effort and good science support. The NPS provisions relating to over-allocation of water quality resources will be particularly applicable in catchments like the Manawatu, where diffuse nutrient enrichment from intensive land use has been identified as the key contributor to degraded water quality.[19] The

[ii] River water quality trend analysis and greater collection and availability of national and regional monitoring data have enabled better identification and explanation of these changes over time.

fourth step noted above is explored in the Manawatu case below which identifies that without effective implementation the integrity of any water quality limits can be undermined and compromised.

LESSONS LEARNED FROM THE MANAWATU RIVER

Many areas of the Manawatu catchment can be considered over-allocated for nitrogen, phosphorus, sediment and faecal contaminants largely as a result of diffuse agricultural sources, unsustainable hill country land use and in some cases direct discharges of waste.[20] High concentrations of contaminants in the river and its tributaries have reduced the health of aquatic ecosystems, negatively impacting the river's life-supporting capacity. [21] On a national scale soluble nitrogen and phosphorus concentrations in the Manawatu River and some tributaries ranked amongst the highest in New Zealand when compared with guideline values[22] and other national river data.[23] Nutrient trends in the Manawatu were consistent with increasing national trends in nutrient enrichment.[24]

Under suitable environmental conditions, unchecked nutrient enrichment of waterways can lead to nuisance growths of periphyton which adversely affect the ecological, recreational, aesthetic and cultural values of rivers and streams.[25] Nuisance growths change the physicochemical properties of the water, reduce the availability and quality of aquatic habitat and cover the substrate with unsightly algal growth. In severe cases, periphyton induced changes in physicochemistry and habitat can be lethal to aquatic invertebrates and fish.

Management of periphyton and nutrient enrichment in freshwaters to meet the wide-ranging needs of aquatic and human communities has been the subject of national debate.[26] The key mechanism for regional councils to control nuisance plant and algal growth and subsequent deleterious effects on waterway values is to control nutrients entering water from the landscape, particularly nitrogen and phosphorus, through the imposition of water quality limits.[27] The way in which water quality limits are

expressed through regional plans can have a significant bearing on how successfully they are implemented to achieve water quality objectives. Having established the issue and the need for a regulatory response we next examine the advantages and disadvantages of two successive generations of plans for the Manawatu River.

Water quality standards: the Manawatu Catchment Plan

In 1998 the Manawatu Catchment Water Quality Regional Plan (the Manawatu Plan) became operative, following a process which began in 1993, identifying degraded water quality and protection of the uses and values of the Manawatu River as key issues. Consultation with environmental and recreational users was focussed on concerns about nuisance growths in the river and the risks posed to public health from bacteriological contamination. The Manawatu Plan's singular objective was to:

> Enhance surface water quality in the Manawatu catchment by the year 2009 to a level which meets the needs of all people and communities while safeguarding the life-supporting capacity of the water.

The Plan utilised section 69 of the Act by identifying water classes from Schedule 3 and setting numeric standards within the rules of the Plan.[28] The Plan also conferred a prohibited activity rule (Rule 6) for all consents which could not meet the various standards within the specified timeframes, the last of which were periphyton and phosphorus standards to be complied with by June 2009.[iii]

The use of strict regulatory mechanisms in the Manawatu Plan might have been expected to confer a strong signal to decision makers that further or continued discharge of contaminants was not consistent with the Plan's intentions. Although the numeric standards within the Plan's rules were more stringent than the largely narrative standards in Schedule 3 of the Act, and the

[iii] No consents were declined due to the prohibited activity status and the vires of Rule 6 was hotly debated, although no statutory declaration from the court was ever sought on this matter by any party.

impending prohibited activity status was a strong signal of intent, in the author's opinion the lack of any numeric objectives in the Manawatu Plan was one of the major hurdles to effective implementation of the water quality limits. Evidence to support this is presented in the following sections.

Others have argued the benefits of numerical water quality limits and noted two major disadvantages to plans which contain numeric rules without linked numeric objectives and policies.[29] In such cases no guidance is provided to decision makers on how to deal with non-complying activities as there is no clear, measurable description of the outcome that the plan is seeking. Additionally, quantitative policies and rules alone may not be enough to effectively manage cumulative effects, particularly from land use or other activities that do not sit within the water quality policy or rule framework. The Manawatu Plan had no numeric objectives, only standards within rules and policies. Below I examine the Plan's implementation in light of the potential disadvantages of that approach.

Non-complying activities: the unexceptional exceptional circumstances paradox

Twenty-five consents were granted to renew significant discharges to the Manawatu River since the Manawatu Catchment Water Quality Regional Plan was made operative.[iv] Of those twenty-five consents, fifteen were granted non-complying activity status because they were known to or were likely to exceed the water quality standards, in particular the phosphorus and periphyton standards of Rule 2. These fifteen discharges were all granted consent through the exceptional circumstances provision of Policy 2. Because the development of the Plan was a consultative and political process and the use of water quality standards was new and untested, a pragmatic way was sought to deal with situations that were outside the rules. Policy 2 used the same language as the clauses of s 107(2) of the Act to define the allowable exceptions as

[iv] The definition of a significant discharge for the purposes of this paper is any discharge of treated human sewage effluent to water, any industrial or food processing discharge or any discharge of more than one contaminant relevant to the standards in Rules 1 or 2 of the Manawatu Plan (e.g. not a gravel washing discharge where sediment is the only contaminant of concern).

many of the standards were similar to the effects defined in s 107(1). Misuse of these exceptions was not foreseen by the Plan's developers or decision makers.

Exceptional can be defined as "…out of the ordinary course, unusual, special".[30] Arguably, when taking a catchment-wide view, granting a high proportion of non-complying consents under the definition of exceptional circumstances makes that provision somewhat farcical. The exceptional circumstances noted in the consent decisions ranged from the prohibitive costs of complying with periphyton and phosphorus standards, to upstream water quality which already exceeded the standards (cumulative effects), to uncertainty about the data or uncertainty of the effects of the discharge in relation to the standards. In the author's experience, none of these circumstances were particularly special or unusual within the context of water quality in the Manawatu catchment; in fact most of the circumstances noted in each case were common to a number of consents.

The application of water quality standards in the Manawatu Plan was an attempt to use numeric water quality standards under a relatively young Resource Management Act. However, the common use of the exceptional circumstances provision during the Plan's lifetime undermined the ability of the Plan to improve water quality downstream of point source discharges, an outcome contrary to the Plan's narrative objective. In some cases the utilisation of the exceptional circumstances provision as an out-clause resulted in cumulative adverse effects arising from the re-consenting of multiple non-complying discharges.

The Plan provided no clear guidance on how the objective of water quality enhancement was to be achieved or what level of water quality was required to meet the needs of people, communities or the life-supporting capacity of the water. So there were no measures against which to judge the merit (or otherwise) of applications for non-complying activities. If numeric objectives for the desired maximum level of periphyton growth or microbiological swimming grade for the river were developed

alongside the standards, non-complying activities could have been considered directly against their effects on these objectives. Such a scenario would have allowed for an empirical assessment of the effects to inform the evaluative process for non-complying consents.

Addressing cumulative effects in the Manawatu

The narrative objective of the Manawatu Plan made assessing non-complying discharge consents in catchments affected by cumulative degradation difficult. In some cases the cumulative effects of activities upstream of a discharge were regarded as the exceptional circumstances by which a consent was exempted from the water quality standards. This approach seems at odds with the intentions of the Plan which was strongly focussed on addressing the effects of point source discharges. Although diffuse pollution is a pervasive cause of water quality degradation in the Manawatu catchment, the Plan gave little regard to the necessity for controls on land use which affected water quality and without a common, overarching numeric objective; land use could not be assessed against measurable water quality outcomes.

Diffuse contamination from agricultural sources was identified within the Plan as a water quality issue, although the science at the time of the Plan's development was not advanced enough to understand the relative contributions of pollutants from land use versus direct discharges. The Plan attempted to mitigate non-point sourced effects through non-regulatory encouragement of riparian planting and the regulation of discharges to land, plainly stating that non-point sourced contaminants were difficult to regulate, measure or define. Because addressing non-point source pollution was not a priority of the Manawatu Plan, this issue became a key consideration in the development of the second generation One Plan.

Planning success or failure?

There are a number of factors which contributed to the failure of the Manawatu Plan to provide obvious or positive water quality outcomes. These factors can be divided into two categories: poor implementation and inadequacies in the planning framework. There is no doubt that failure to implement the intentions of the Plan on a consent by consent basis was a contributor to the undermining of the Plan's integrity through the Policy 2 exceptional circumstances provision. Two other inadequacies of the Plan's framework included the lack of measurable objectives and lack of spatial resolution. Schedule 3 water classes were applied from the Act to provide some spatial reference for the standards. However the lack of clarity about the desired outcome at any particular point in the catchment meant the values of the receiving environment were often argued on a case by case basis. Subsequently there was no clear path to monitor the Plan's objective over time and the intent of the Plan, although clearly articulated throughout the Plan's narrative, was not adequately carried through into the planning provisions. Additionally, the scientific basis and technical understanding of the issues was hampered by sparse river monitoring data.

With hindsight and a better scientific understanding of the issues it is easy to focus on the negative aspects of the Manawatu Plan and to overlook the Plan's successes which also deserve mention. The reduction in dairy effluent discharges to water over the life of the Plan was an important and successful outcome. At the outset of the Plan in 1998 there were 318 consents for dairy effluent discharge to water in the Manawatu catchment, by 2010 there were just two. Dairy effluent discharges to water were successfully phased out by alerting farmers to the impending change in the acceptability of discharges to water prior to the Plan becoming operative. This approach was backed up by the Plan's preference for discharges to land over water and ultimately the water quality standards in the rules. Generally, as consents for dairy effluent discharge expired farmers were given short term consents to continue discharging to water (usually three years) whilst upgrading to a land irrigation system. The exceptional circumstances

provision was not actioned for dairy effluent consents and few, if any, of these consents ended in a hearing.

Removal of dairy effluent discharges from waterways reduced direct phosphorus, nitrogen and faecal pathogen loads to the catchment's rivers and may have contributed to improved nutrient trends in the short term,[31] although this is speculative and any positive effects on overall water quality may have been masked by increased intensification and diffuse nutrient inputs over the same time period.[32] Removing dairy discharges from water does not completely remove adverse effects on water quality; rather, contaminants reach rivers via diffuse mechanisms such as overland runoff or subsurface leaching. Dairy effluent discharges to land would have contributed to diffuse effects on waterways, particularly during wet conditions, in high rainfall areas and on poorer soils. Changes in dairy management were then rolled out across the rest of the region, significantly reducing the number of direct discharges to water region-wide.

Some Territorial Authorities and industries responsible for significant point source discharges in the Manawatu catchment did undertake plant upgrades to achieve some of the Rule 1 and 2 standards. Faecal pathogens were reduced in a number of point source discharges through ultra-violet treatment systems and biochemical oxygen demand (BOD) was reduced throughout most of the catchment. Too much BOD causes growths of what is commonly referred to as sewage fungus. This slimy growth, in conjunction with the BOD itself, reduces dissolved oxygen concentrations at night and was responsible for fish kills in the lower Manawatu in the early 80's.[33] Reduced BOD in point source discharges as a result of a clean-up effort in the 80's was reinforced by the Plan BOD standard and did result in improved BOD concentrations in the lower Manawatu River[34] to levels which no longer caused wide-scale fish kills. Changes to effluent treatment systems that reduced faecal pathogens and BOD were considered more affordable than the upgrades needed to reduce phosphorus as the Plan required by 2009, so compliance with these standards was more easily implemented than for phosphorus.

So how did the approach taken by the Manawatu-Wanganui Regional Council differ for the second generation planning in the One Plan? I explore the similarities and differences below.

The One Plan approach

For the purposes of resource management and monitoring the Manawatu-Wanganui region was split into 44 management units known as water management zones, defined in the Schedules of the One Plan. The water management zones framework provided a basis to ensure that limits for water quality and value judgements for water bodies were spatially relevant; an approach also recommended by other commentators on water quality limits.[35] The One Plan specified water body values and narrative management objectives for each value, supported by the Plan's Objectives and Policies. These values were defined for each water management zone and provided for by the water quality limits for that zone.[36]

Like the Manawatu Plan before it, the One Plan does not contain any numeric objectives. This may mean that the lack of clarity introduced by the broad narrative objective in the former plan is perpetuated in the latter. However, an important advantage the One Plan has over the Manawatu Plan is the detailed specification of water body values for each management zone linked to the objectives in the Plan. Although the objectives are narrative, they are more specific than the broad goals of the Manawatu Plan and this may increase their effective use in the consent process. If an activity is unable to comply with the water quality limits, decision makers can fall back to the objectives to determine whether the activity will have an adverse effect on the values of the receiving environment. Whether measuring activities for their effects on the values of the One Plan will be technically feasible or simple is yet to be thoroughly tested through the consent process. The disadvantages of continuing to rely on narrative objectives are that there is no clarity for resource users about whether consent is likely to be granted and the assessment of an activity against the

values could be viewed as subjective. Decision makers will need to refer to the relevant policies, although it could be argued that less guidance is provided there for dealing with activities that do not meet the water quality limits than in the Manawatu Plan.

The One Plan's policies direct the management of activities to maintain water quality where limits are met and enhance water quality where limits are not met. Although an exceptional circumstances provision in the notified version of the One Plan has been removed, the policies do provide a flexible approach in which decision makers on point source discharge consents must have regard to the water quality maintenance and enhancement policies, the water body values, the cumulative effects (both point and non-point source) and a number of other matters including whether best management practises are being used or if the discharger has adopted the best practicable option (BPO). Given the Manawatu catchment (among others) continues to have degraded water quality from point source discharges,[37] the policy framework for these consents could be considered too open to discretion, risking failure at implementation like the Manawatu Plan before it.

With two minor exceptions[v] the water quality limits within the One Plan are not linked to rules or associated with the implementation of standards as rules under s69 of the Act. This is a key difference from the Manawatu Plan, which had a strong rule stream attached to the water quality standards supported by policies and non-complying and prohibited activity status. By contrast, the One Plan has no non-complying activity status for discharges to land or water. In not conferring this status there is a risk of implying that activities which exceed the water quality limits are generally acceptable. A discretionary status for all activities is too open to interpretation on a case by case basis, is unhelpful to decision makers, provides no clarity to resource users on whether a consent is likely to be granted and potentially risks undermining

[v] There are two rules in the One Plan which use the water quality limits as permitted activity thresholds, these rules relate to discharges of water and stormwater and are not within the scope of this analysis.

the objectives and policies.[38] Milne cautions that in cases where cumulative effects are approaching sustainable limits (or in the case of water quality in the Manawatu River exceeding sustainable limits) activities should not be left as discretionary for the reasons listed above.[39]

In this sense the One Plan's approach to water quality limits is inconsistent with its approach to water allocation. For water takes within the core allocation limit the activity is controlled, for those outside the allocation limit the activities are non-complying. In this case the Plan provides clear guidance on which activities are generally acceptable and which are not through the activity status. In the author's opinion the water allocation approach in the One Plan is consistent with the requirement for setting limits in the Freshwater NPS but the water quality policies require strengthening before they will achieve the same level of clarity or consistency.

One leap forward from the Manawatu Plan was the inclusion in the One Plan of rules for the control of intensive land uses such as dairying, irrigated sheep and beef farming, cropping and commercial vegetable growing, to manage the effects of diffuse contaminants. The non-regulatory methods for riparian management in the Manawatu Plan have been ineffectual in arresting water quality degradation from diffuse sources. A tougher regulatory approach was required. The One Plan's shift in focus from point sources (as in the Manawatu Plan) to control of land use to address the cumulative effects on water quality was controversial and untested in river resource management. However, Environment Waikato (through variation 5) and Environment Bay of Plenty (through Rule 11) had led the way in proposing regulation of land use for lake water quality.

The proposed One Plan has been amended by decisions subsequent to hearings which reduced the level of regulatory control of intensive land use. The amended version of the Plan is currently under appeal to the Environment Court and the manner by which water quality limits are applied in the Plan (as standards,

targets or limits) and the level of regulatory control of land use are two of the points of appeal to the Court. Changes to the water quality approach may yet occur through the mediation and Court processes.

Numeric objectives from water quality limits in the One Plan

An approach that is unlikely to be within the scope of the One Plan appeals is the potential to elevate some of the water quality limits to the level of numeric objectives. In conjunction with an approach which applies the limits as rules (standards) and a non-complying status for activities which exceed the limits, numeric objectives would provide considerable clarity about what the Plan is trying to achieve in the long term across all activities which affect water quality (including point and non-point sourced contaminants). Numeric objectives also provide a sound basis for monitoring policy effectiveness throughout the Plan's lifetime and beyond.

As discussed earlier, not all water quality indicators are appropriate for use as numeric objectives. For example, the nutrient limits for nitrogen and phosphorus themselves are not important environmental outcomes to manage. It is the effect of nutrient enrichment on periphyton (algae) growth and other river values which are the outcomes these particular limits are intended to manage. The limits were developed to provide for a range of values at different levels depending on the individual water management zone.[40] The limits most closely related to the One Plan's desired outcomes for rivers are *Escherichia coli (E. coli*) limits for faecal indicator bacteria, black disc limits for water clarity, periphyton limits for algal cover and the macroinvertebrate community index (MCI) limits as a measure of the state of aquatic ecosystems.

As explored below, all four of these water quality indicators taken from the One Plan limits meet the suitability tests for consideration as objectives. The first test is that they describe an environmental state that can easily be explained to a non-technical

audience. Some translation is required from the raw numeric objectives but essentially *E. coli* under the limit means the river is safe to swim without an increased risk of illness, an alternative approach would be to use a microbiological swimming grade as the objective (i.e. good, fair or poor) with a supporting *E. coli* standard or limit.[41] Horizontal visibility which exceeds a minimum black disc objective means the water is clear enough to see through (for swimmers and fish). Periphyton cover within a maximum limit means there is not a large amount of green slime on the river bed and MCI above the limit means the type of aquatic bugs and insects which are expected for a given environmental state are present. Each of these objectives allows for the setting of a desirable level of environmental state that can be weighed against economic, cultural and social considerations.

The second and third tests are whether the objective is measureable and scientifically defensible. Each of these limits proposed are currently monitored throughout the region's rivers using nationally accepted protocols. All four can be tested statistically for trends over time. The *E. coli*, water clarity and periphyton limits have nationally adopted guidelines on which the objectives can be based.[42] National guidelines for MCI have not been formalised but user guides and protocols for sampling are well documented and the index and its variants are generally accepted as the best currently available measures to determine the state of aquatic macroinvertebrate communities.[43] The fourth test relates to whether the objective responds in a known way to resource use or the presence of contaminants. All four numeric objectives are supported by a body of research literature and their response to the effects of discharges and land use have been widely studied. Elevating these four indicators (*E. coli*, water clarity, periphyton and MCI) to the status of numeric objectives in the One Plan would provide clear, measurable outcomes in relation to contact recreation, life-supporting capacity, trout fishery, and aesthetic values, thereby meeting the fifth and final suitability test.[44]

The adoption of numeric objectives for the Horizons Region would clarify the freshwater outcomes the plan is trying to achieve across all activities and greatly assist Horizons to meet the requirements of the Freshwater NPS. Numeric objectives would also further strengthen existing policy effectiveness monitoring over the long term.

CONCLUSION

A hierarchical system of numeric objectives and rules is a logical, defensible system for the application of water quality limits using the RMA planning framework. The goal of setting water quality objectives is to provide clear, measurable outcomes that are locally relevant, value-based and allow for the cumulative effects of land use and discharges to be considered. Applying water quality indicators as numeric objectives, limits to resource use or rules for resource users, provides a transparent threshold of acceptability and a pathway for dealing with non-complying activities.

The lessons learned from using water quality limits in the Manawatu-Wanganui region lead to the conclusion that, as resource managers, we need to go beyond dealing with cumulative effects using the three steps of identifying the resource, determining its capacity for use, and establishing limits to resource use.[45] Seven integrated steps to assist in the development and application of water quality limits in regional policies and plans are recommended. These steps are:

1. Determine a spatial framework that accounts for environmental variability across and within catchments (e.g. topography, geology, and hydrology). Using this framework, identify the community values for water and develop water quality indicators that are associated with those values.

2. Thoroughly examine the relative contributions of contaminants from all sources to the allocation of water quality resources using sound science.[vi]
3. Choose strong numeric objectives which will give clear guidance for the direction and intent of regional policies and plans. Test the water quality indicators to determine which are appropriate to elevate to numeric objectives using the five suitability criteria detailed above.
4. Set limits to resource use and standards for resource users by using the remaining water quality indicators to develop standards (rules) which support the numeric objectives.
5. Develop an activity status framework that signals the acceptability (or otherwise) of activities that exceed the standards and link all activities that affect water quality to the numeric objectives. Ensure non-complying activities will be captured by the objectives.
6. Be clear and precise in describing any exceptions to the rules. Expect that any exceptions in water quality policies will be challenged.
7. Regularly audit the effectiveness of implementation against the Plan's intentions and objectives to ensure the integrity of the objectives and policies are not undermined.

These considerations will be progressively more relevant to all regional councils grappling with managing the cumulative effects of land use and other activities on freshwater quality in New Zealand and with fulfilling the requirements of the Freshwater NPS.

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[vi] Note: the variability of water quality in relation to flow is integral to understanding the effects of activities on river systems.

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