BEFORE COMMISSIONERS APPOINTED BY THE WAIKATO REGIONAL COUNCIL

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of the First Schedule to the Act
AND	
IN THE MATTER	of Waikato Regional Plan Change 1- Waikato and Waipā River Catchments and Variation 1 to Plan Change 1
AND	
IN THE MATTER	of submissions under clause 6 First Schedule
BY	**BEEF + LAMB NEW ZEALAND LIMITED** **Submitter**

SUBMISSIONS OF COUNSEL FOR BEEF+LAMB NEW ZEALAND LIMITED
26 March 2019

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MAY IT PLEASE THE COMMISSIONERS:

1. The Waikato region is one of New Zealand's most productive and important agricultural areas. It is highly valued for its soils, climate and topography. It contains one of the country's most important water bodies, the Waikato River.

2. The Waikato river is hugely significant to Māori and Pākehā for many reasons, including from both spiritual and productive agricultural perspectives. The Government has recognised through Treaty settlements with Mana Whenua Iwi and national policy direction under the RMA that parts of the River are physically and culturally degraded, and something must be done about it.

3. Beef+Lamb New Zealand Ltd ("B+LNZ") is a farmer-owned, industry organisation that represents New Zealand's sheep and beef farmers. B+LNZ is funded through a levy paid by all beef and sheep meat producers under the Commodity Levies Act 1990. B+LNZ develops programmes aimed at expanding the sheep and beef industry and seeks to improve market access, product positioning and farming systems.

4. Sheep and beef cattle numbers have fallen by around 50% and 25% respectively in the last 25 years or so. Nonetheless, the sector's contribution to GDP has roughly doubled[1]. The sector is strong, resilient and adaptable. The average stocking rate in the Waikato is 9.2 stock units per effective hectare[2].

5. B+LNZ's role in environmental regulation has tended to be one of quiet leadership. It has assisted its levy-payers to adopt leading environmental practices on-farm, profitably. The organisation provides significant resource nationwide to facilitate this.

6. B+LNZ has submitted on Plan Change 1 and Variation 1 (together "PC1") seeking changes that recognise the statutory and planning imperatives, while fairly recognising the contribution of the red meat sector to nutrient loads and their equitable allocation between land users in the Region.

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[1] Evidence of Richard Parkes at [26].
[2] Evidence of Andrew Burtt at [54].

7. PC1 is high-stakes for the sector. The evidence it is calling echoes the submissions and evidence of its levy-payers and demonstrates the magnitude of the issue for Waikato farmers.

8. Others have taken you through the approach in PC1, including the "twin engines" of PC1[3], i.e. Table 3.11-1 and farm environment plans (FEPs), the staging of the rule framework and nitrogen reference points. Therefore, I will not repeat that here.

9. The intent of the Waikato Regional Council to develop an integrated plan to address significant resource management issues identified in the Vision and Strategy for the Waikato River and National Policy Statement for Freshwater Management 2014 ("NPSFM") is supported by B+LNZ. However, it considers that there are errors in some of the work that underpins PC1. This means that one of the principle tools of PC1, Table 3.11-1, cannot be relied on to have correctly identified freshwater objectives[4] that properly reflect the statutory requirements of the RMA, as expressed in the Vision and Strategy and NPSFM.

10. B+LNZ seek an outcome that improves certainty and empowers the community at the sub-catchment level to manage and take responsibility for water quality. It proposes an approach that recognises the most efficient and effective way to achieve the vision of the Vision and Strategy (by giving effect to it) and to give effect to the NPSFM is to recognise the contribution different sectors have made, do make and will make to the nutrient load in the Waikato and Waipā catchments. This means the nitrogen reference point (NRP) proposed by PC1 is fundamentally unsuitable and is, in B+LNZ's view, simply grandparenting, but more about that later.

11. Attached as Appendix 1 is a table that summarises the relevant parts of B+LNZ's submissions for this hearing stream. Given the focus of this part of the hearing on the fundamentals that underpin PC1, further submissions and evidence will be adduced as the process continues.

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[3] As described by counsel for Waiareki Pastoral Ltd.

[4] B+LNZ consider the table, which describes its contents as targets are more properly freshwater objectives: see evidence of Ms Jordan and above.

LEGAL FRAMEWORK

12. The amendments to the RMA in the Resource Legislation Amendment Act 2017 were enacted after PC1 (including Variation 1) was notified. Therefore, it is the Act in its pre-2017 amendment form that is to be applied[5].

13. The process for regional plan making has been addressed in numerous decisions. The most often cited explanation of the regional planning process is set out in *Day* v *Manawatu-Wanganui Regional Council* [6]:

> Regional Plans
>
> 1. The purpose of a regional plan is to assist a regional council to carry out its functions in order to achieve the purpose of the Act (s63).
>
> 2. When preparing its regional plan the regional council must give effect to any national policy statement or New Zealand Coastal Policy Statement (s 67(3)).
>
> 3. The regional plan must not be inconsistent with any other regional plan for the region or a consideration order or a determination of the Chief Executive of the Ministry of Fisheries about aquaculture permits (s67(4)).
>
> 4. When preparing its regional plan the regional council shall:
>
>   - Have regard to any proposed regional policy statement in the region (s66(2));
>
>   - Give effect to any operative regional policy statement (s67(3)(c));
>
>   - Have regard to the extent to which the plan needs to be consistent with the regional policy statements and plans or proposed regional policy statements and plans of adjacent regional councils (s66(2)(d)).
>
> 5. A regional plan must also record how it has allocated a natural resource under s 30(1)(fa) or (fb) and (4), if it has done so (s67(4)).
>
> 6. When preparing its regional plan, the regional council shall also:

[5] See Schedule 12 to the RMA.
[6] [2012] NZEnvC 182 at [1-13].

- Have regard to the Crown's interest in land of the Crown in the CMA (s66(2)(b));
- Have regard to any management plans and strategies under other Acts, and to any relevant entry in the Historic Places Register and to various fisheries regulations (s66(2)(c);
- Take into account any relevant planning document recognised by an iwi authority (s66(2A)(a)); and
- Not have regard to trade competition (s66(3)).

7. A regional council must prepare a regional plan in accordance with its functions under s30, the provisions of Part 2, any direction given by the Minister for the Environment, and its duty under s32 and any regulations (s66).

8. A regional plan must also state its objectives, policies to implement the objectives and the rules (if any) (s 67(1)) and may (s67(2)) state other matters.

9. The rules (if any) are for the purpose of carrying out its functions (other than those in s30(1)(a) and (b)) and achieving the objectives and implementing the policies of the plan (s67(1)(c) and s68(1)).

10. In making a rule the regional council shall have regard to the actual or potential effect on the environment of activities (s68(3)).

Part 2 - s 5

14. The purpose of the Act is to promote the sustainable management of natural and physical resources. Sustainable management requires the use, development and protection of natural and physical resources be managed in a way, or at a rate that enables people in the communities to provide for the social, economic and cultural wellbeing and for their health and while:

(a) Sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations;

(b) Safeguarding the life supporting capacity of air, water, soil and ecosystems; and

(c) Avoiding, remedying or mitigating the adverse effects of activities on the environment.

15. The use of the word "while" links the two parts of the definition and means "at the same time as"[7]. For the purpose of interpretation, one part is addressing development interests, and the other addressing intergenerational and environmental interests. However, the definition should be read as an "integrated whole"[8].

16. The definition requires management of natural and physical resources to be carried out in a way that achieves the objectives in s 5(2)(a), (b), and (c)[9]. Another way of viewing s 5(2)(a), (b), and (c) is as cumulative safeguards which must be met before the Act's sustainable management purpose is met[10].

17. Section 5 has been held by the Supreme Court to state a "guiding principle" intended to be applied by those performing functions under the Act, rather than a specifically worded purpose intended as an aid to interpretation[11]. By giving effect to a plan that has been prepared in accordance with part 2 there is no need to refer back to it when determining a plan change[12]. The exception is if a plan being given effect to is invalid, incomplete (including in respect of the obligations under s 8) or uncertain[13].

18. Sections 6 and 7 expand on s 5 and identify certain matters that are to be considered when judging if a proposal achieves the purpose of the Act while performing the council's functions described in part 4[14].

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[7] *Hall v Rodney District Council* Planning Tribunal Auckland A78/95, 15 August 1995 at 32 and *King Salmon* at [24](c).
[8] *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* at [24](c).
[9] *Hall v Rodney District Council* at 32.
[10] *Foxley Engineering Ltd v Wellington City Council* Planning Tribunal, W 12/94, 16 March 1994 at 40.
[11] *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38 at [24](a).
[12] *King Salmon* at [85].
[13] *King Salmon* at [88].
[14] *King Salmon* [at [25]; *New Zealand Rail v Marlborough District Council* [1994] NZRMA 70 at 85; *Trio Holdings v Marlborough District Council* (1996) ELRNZ 353 at 354-355.

Section 8 occupies a special position under the Act and is integral to performance of functions under the Act.

19. It is submitted that s 5 is to be interpreted and understood by reference to the Vision and Strategy and NPSFM. B+LNZ's central position is that read and understood properly the two documents are consistent with s 5 because both seek to prevent further degradation of water bodies and improvement where required, while recognising relationships with the water bodies are important for individual and community wellbeing. More about that later.

Part 2 - s 6

20. Relevantly, s 6(a), (c) and (e) require:

    (a) The recognition and provision for the preservation of natural character and wetlands, lakes, rivers and their margins;

    (c) Protection of areas of significant and indigenous vegetation and significant habitats for indigenous fauna;

    (e) Recognition and provision for the relationship of Maori with ancestral water.

21. These are all matters of national importance and have been extensively discussed by the Court. All are relevant for the exercise of Council's functions under s 30 and the making of this part of the Plan.

22. The preservation of natural character of lakes and rivers is of particular importance here. This is because the health and wellbeing of water has a significant impact on natural character. Where water quality is degraded, whether it be from point source or diffuse nutrients, there can be adverse effects on natural character from the presence of periphyton, algae, and other adverse effects. Sediment can impact on water clarity[15] and along with pathogens impact on swimmability. Excess

[15] Brief of Evidence of Dr Chris Dada at [34].

levels of nutrients in waterways can lead to nuisance biological growth, which in turn can impact on recreation and aesthetics[16].

23. Wetlands, the margins of rivers and lakes, areas of indigenous vegetation and habitats of indigenous fauna also rely on good water quality.

24. It is submitted the link between these matters of national importance are recognised in, amongst other things, the NPSFM's focus on Te Mana o Te Wai. Te Mana o Te Wai recognises the connection between water and the three limbs of the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people)[17]. While no evidence on its specific meaning is being called by B+LNZ, it is submitted that it provides for a holistic approach to water management and incorporates the national values in Appendix 1 NPSFM and additional values of local tāngata whenua[18].

Part 2 - s *7*

25. Relevant subsections of s 7 include 7 (a), (aa), (d), (f), (g), and (h) and require decision-makers to have regard to:

    (a) Kaitiakitanga;

    (aa) The ethic of stewardship;

    (c) The maintenance and enhancement of amenity values;

    (d) Intrinsic values of ecosystems;

    (f) Maintenance and enhancement of the quality of the environment;

    (g) Any finite characteristics of natural and physical resources;

    (h) The protection of the habitat of trout and salmon.

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[16] Brief of Evidence of Dr Hannah Mueller at [50].
[17] National Policy Statement Freshwater Management 2017, objective AA1.
[18] *Sustainable Matata v Bay of Plenty Regional Council* [2015] NZEnvC 90 from [388].

26. The ethic of stewardship has not been the subject of much judicial comment and is not defined in s 2 of the Act. However, it can be considered an extension of kaitiakitanga (s 7(a))[19].

27. Subsections 7(c) and (f) require decision-makers to have regard to the "maintenance and enhancement" of amenity values and the quality of the environment. "Maintain" includes the meaning of protect, with protect meaning to "keep safe from harm or injury"[20]. There appears to be less discussion on the meaning of "enhance", but it is generally defined to mean increase or further improve the quality of[21].

28. Intrinsic values are defined in the Act as, in relation to ecosystems, those aspects of ecosystems and their constituent parts which have values in their own right, including:

    (a) their biological and genetic diversity; and

    (b) the essential characteristics that determine an ecosystem's integrity, form, functioning and resilience[22].

Part 2 – s 8

29. In achieving the purpose of the Act, decision-makers are to take into account the principles of the Treaty of Waitangi in relation to managing the use, development and protection of natural and physical resources.

30. The principles of the Treaty of Waitangi can be summarised as[23]:

    (a) The Crown has an obligation to actively protect Maori interests;

    (b) The Crown and Maori have mutual obligations to act reasonably and in good faith;

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[19] Westlaw, Resource Management, A7.03.
[20] *Port Otago v Dunedin City Council* C004/02 at [41]-[42].
[21] https://en.oxforddictionaries.com/definition/enhance accessed 20 March 2016.
[22] See s 2.
[23] *Carter Holt Harvey Ltd v Te Runanga o Tuwharetoa Ki Kawerau* [2003] 2 NZLR 349 at [27].

(c) The Treaty provides a basis for changing relationship and should always be progressively adapted;

(d) There is a principle of mutual benefit that should be applied;

(e) The Treaty has the basic objective of two peoples living together in one country and this concept lays the foundation for the principle of partnership; and

(f) The Crown has guaranteed rangatiratanga to all iwi, and the Crown would not allow one iwi an unfair advantage of another.

(g) The Crown has an obligation to recognise rangatiratanga. This may involve the tribal right to manage resources in a manner compatible with Maori custom.

31. The obligation to take into the account the principles extends to local authorities exercising functions and powers under the Act[24].

Legal Relationship of Plan Provisions

32. A regional plan is a form of subordinate legislation and therefore attracts the normal administrative law requirements of certainty and clarity in its drafting. Rules have the force of regulation, but objectives and policies do not.

33. The underlying rationale for rules is to assist the Council to undertake its functions under the Act and to achieve its purpose. The functions of the Council are specified at s 30 and there is an obligation in making a rule to have regard to any actual and potential effects on the environment of an activity[25]. Rules must be capable of supporting enforcement action under the Act.

34. There is a descending hierarchy in s 67 requiring policies to implement objectives and, in turn, the rules to implement the policies. An objective is an outcome to be achieved. A policy is usually a course of action to

[24] *Ngāti Maru Ki Hauraki Inc v Kruithof* [2005] NZRMA 1 (HC) at [57].
[25] Section 30(1)(b).

implement / achieve the objective. The rules set the framework for how that course of action will be executed.

35. Neither ss 67 or 68 require objectives and policies to be validated by rules. In fact, the relationship is in reverse. It is the objectives and policies that must provide the basis for a rule.

Are Rules Mandatory Beyond the 10- year Planning Horizon?

36. This section is addressing the question of whether the failure to provide for rules beyond a 10 year timeframe creates a legal difficulty for Council in giving effect to the Vision and Strategy.

37. Section 67(1) confusingly provides that a regional plan "must state" rules to implement policies, but within parenthesis includes the words "(if any)". On its face this suggests that rules are not mandatory because it contemplates circumstances where there can be no rules.

38. Subsection (2) then goes on to list non-mandatory matters that a regional plan may include. Importantly that list includes "methods, other than rules". It is submitted this is a deliberate statutory distinction within the Council's planning toolbox. We have the rules on the one hand and all other methods on the other. So, the question is why list rules as a mandatory requirement (must) when the section contemplates rules may not exist (if any)?

39. When considering the effects-based rationale of the RMA, it makes sense that some form of command and control regulation (i.e. a rule) is appropriate. This can be seen in the obligation on councils to control the use of water and discharge of contaminants to water. Because of the nature of a policy and its lack of force as a regulation (i.e. it cannot be directly enforced) rules are necessary to do this. But how then can that be reconciled with the drafting of s 67?

40. The only way these two apparent conflicting statutory provisions can be reconciled is by acknowledging there may be policies that do not require rules to be implemented. For example, policies may be in place that provide for non-statutory mechanisms to assist with environmental regulation. The steps may include information pamphlets, voluntary

catchment management groups for group consenting and other non-regulatory methods to implement policies encouraging these sorts of steps. This logic would extend to non-binding policies that signal future plan changes to implement objectives requiring the long-term restoration of water quality and the need to make short-term improvements as a first step. The RMA does not require a rule for every objective and policy in the plan and a method other than a rule may be more appropriate.

41. Therefore, it is submitted that rules are not mandatory in all circumstances and their necessity and content is informed by the policy choices made in a plan.

42. However, where PC1 begins to become unstuck on its merits is the requirement for certainty when implementing objectives and policies. This is the very basis of planning; the ability for people and communities to make decisions that affect their health and wellbeing, informed by the regulatory framework in place. This, in turn, is a function of the s 32 analysis when determining whether a plan change is appropriate[26], efficient and effective. If a policy indicates that changes are coming, but those changes are only generally signalled, that is unreasonable and inappropriate. It is submitted asking people and communities to provide for their health and well-being in an information vacuum beyond a short-term horizon is the antithesis of sustainable management.

43. The reason PC1's approach is different from the 10 year horizon otherwise provided for in the RMA is the policy decision by Council to signal the need to change current land uses, probably within the following 10 year planning cycle, while still requiring changes in land use by way of rules now, without any real ability to plan forward. It is difficult to see how this can be considered a programme of action to achieve the targets for improving the health of the Waikato River. It is only a single step and a poorly defined one at that.

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[26] See s 32(1)(a) - the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act and *Rational Transport Society Inc v New Zealand Transport Agency* [2012] NZRMA 298, "most appropriate" does not mean the superior method. Section 32 requires a value judgment as to what, on balance, is the most appropriate – measured against the relevant objectives.

44. That is not to say a policy requiring a 10% improvement target in 10 years, implemented by certain and clear rules and the need to assess effectiveness of PC1 over time is inappropriate. It is the next step that is the problem – what happens from year 11 on? Is the next step or next steps clearly and reasonably signalled?

45. PC1 needs to better show that the first step will minimise social disruption and not just pin all its hopes on as yet unidentified technological advances. Failure to look at what might be expected between 2026 and 2096 has the feel about it of deferring the hard calls for another day, behind the guise of claims that more monitoring and information is needed. B+LNZ's preference would be to receive clear signals now and confront the consequences of what PC1 means. This is most clearly done by the evidence it has called from Dr Cox, which I will return to later.

NATIONAL PLANNING INSTRUMENTS

Vision and Strategy for the Waikato River

46. PC1 has an unusual statutory context because it is required to not only give effect to national policy statements and the Waikato Regional Policy Statement, but also the Vision and Strategy. The unique relationship the Vision and Strategy has with the RMA planning documents comes about from the Waikato iwi Treaty settlement legislation[27] (the "Settlement Legislation").

47. The Vision and Strategy is deemed part of the RPS[28], however it prevails over any inconsistent provision of the RPS[29].

48. The Settlement Legislation also includes a general requirement[30] for Council to have particular regard to the Vision and Strategy when

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[27] Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngāti Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipā River) Act 2012.
[28] See s 11 Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, s 12 Ngāti Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and s 8 Nga Wai o Maniapoto (Waipā River) Act 2012.
[29] See above legislation.
[30] See above Acts.

exercising powers under the RMA[31]. The Vision and Strategy prevails over any inconsistent provision in the NPSFM[32].

49. *King Salmon* points out that the New Zealand Coastal Policy Statement's purpose is to state objectives and policies to achieve the purpose of the RMA in relation to the coastal environment. Similarly, under s 45 a national policy statement's purpose is to state objectives and policies for matters of national significance[33] that are relevant to achieving the purpose of the RMA. The NPSFM therefore gives substance to the part 2 provisions[34] for (inter alia) the preservation of natural character of wetlands, lakes and rivers and their margins[35]. As already noted there is no need to refer back to part 2 when determining a plan change, subject to invalidity, coverage and uncertainty[36].

50. Here we have the additional "layer" of the Vision and Strategy, which is equivalent to the NPSFM, unless there is inconsistency, where the former applies.

51. Council's statutory plan making functions are performed under the RMA. The obligation under the RMA to comply with the statutory objective is clear[37] as a guiding principle to be applied when performing those functions[38]. Therefore, the Vision and Strategy and NPSFM inform how we are to give effect to the Act.

52. Thus, like in *King* Salmon, it is the interpretation of the superior statutory documents that is important. Do they place a different emphasis on the management of the Waikato River (i.e. its FMUs identified under the NPSFM)? It is submitted that the findings in P*uke Coal v Waikato*

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[31] As pointed out by Mr Milne for Council this requirement is a little odd when considered in the context of the requirement to give effect to it under part 5. It may be explained by looking at s 104, which would otherwise require regard to be had to it as part of the RPS, which elevates its significance.
[32] See s 12 Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, s 13 Ngāti Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010, s 8 Nga Wai o Maniapoto (Waipā River) Act 2012.
[33] That is, under s 6.
[34] See *King Salmon* at [85].
[35] See s 6(a).
[36] Ibid. at [88].
[37] Ibid. at [21].
[38] Ibid. at [24].

Regional Council[39], highlighted by Counsel for the Council (as proponent), demonstrate the shift in emphasis for this region in respect of part 2 toward the intergenerational and environmental interests in s 5. That case held there is a proportionate obligation on applicants for resource consents to demonstrate how an activity will protect and restore the health and wellbeing of the River and further degradation from either point source or diffuse discharges are therefore, logically, impermissible.

53. However, B+LNZ's position is that it cannot and does not alter the sustainable management purpose of the RMA when making this plan. Specifically, the Vision and Strategy's objectives, properly understood, make it clear that document is an expression of how to sustainably manage the Waikato River in all respects, including providing for people and communities' wellbeing. Protecting the River from the adverse effects of use and development is reflected in, inter alia, the use of "protection" throughout the Vision and Strategy, the adoption of the precautionary approach, avoidance of cumulative effects and recognition that the River should not be required to absorb further degradation[40].

54. For its part, the NPSFM requires at objective A2 that water quality be maintained or improved. It is submitted protection and restoration is not substantively different from maintenance and improvement. The main difference is that restoration has a backward-looking temporal element to it, meaning a previous point in time needs to be identified. Whereas improve is only forward looking.

55. The presence of the conjunctive *and* in objective (a) Vision and Strategy does not change the expression of the purpose of the Act in either document. It means that further degradation is not an option[41].

56. It is submitted the Council's interpretation of the Vision and Strategy is not consistent with the purpose of the Act and does not give effect to the Vision and Strategy, properly understood, or the NPSFM. As set out

[39] [2014] NZEnvC 223.
[40] Objectives (a) – (d), (f), (g) and (h).
[41] Which is also reflected in objective (h).

above the Vision and Strategy recognises all the elements of the definition of sustainable management. This is seen most clearly in objectives (b) – (d), which contemplate re-establishing, if necessary, economic, social, cultural and spiritual relationships (restore) and protecting existing relationships. It does not require no change to those relationships; in the circumstances that would be a nonsense. The outcome of PC1 as notified will create a magnitude of change to, particularly economic and social, relationships that cannot be said to protect relationships. It will nearly, or completely destroy them, depending on which part of the catchment one farms in, as demonstrated by Mr Beetham and Dr Cox, amongst others. It is submitted this cannot be consistent with the purpose of the Act, which requires an integrated approach, also recognised in objective (e) Vison and Strategy[42]. Council has fallen into the trap the Supreme Court warned us about in *King Salmon*[43] of viewing the two parts of s 5 as separate and competing, rather than complementary, which has led to undue focus on water quality outcomes at the expense of the other identified values.

57. The Waikato River Authority's published version of the Vision and Strategy recognises the commitment and time it will take to restore and protect the health and wellbeing of the Waikato River. Elsewhere there is reference to a 30 year funding contribution from Central Government to execute the Vision and Strategy. There is no specific reference in the Vision and Strategy to the 80 year timeframe PC1 identifies in its policy framework. It is submitted that was a policy decision.

58. When Council is undertaking its regional planning functions under s 30, it should not advance an approach that is inconsistent with the recognition the improvement of the health and wellbeing of the Waikato River will take commitment and time. In other words, it is an inter-generational project. Practically therefore the lack of a reference to an 80-year timeframe in the Vison and Strategy means very little because:

[42] The integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River.
[43] At [24](c).

(a) The Vision and Strategy leaves the decision-making on timeframes to give effect to it open: presumably, deliberately; and

(b) There is a tacit, if not explicit, recognition in the NPSFM that improvements to water quality contemplated by objective A2 will take time.

59. That decision on timeframe was reached by the CSG, as counsel understands it by majority[44], in reliance on the work completed by the TLG and what it considered to be an appropriate timeframe to achieve the vision. A precise 80 year timeframe is not necessarily required to give effect to the Vision and Strategy. It is B+LNZ's position that timeframe may be appropriate, but the steps to get there are not well defined and should be better signalled now. Secondly, there are some questions about the reliability of the assumptions that have been adopted in relation to attenuation and lag, which means the 80 year timeframe may not be aspirational enough.

60. Thus, B+LNZ does not oppose the intergenerational nature of the objectives of PC1. For B+LNZ the issue is not the long-term timeframe per se, but how its levy-payers and the wider community can properly plan within that timeframe given the way PC1 attempts to discharge its s 30 functions. In other words, it questions its effectiveness and efficiency. B+LNZ consider that, as currently framed, its objectives lack consistency with the values identified in section 3.11.1. It considers PC1 needs to more clearly identify how the 80 year timeframe links to the values in its objectives.

61. B+LNZ take the position that the numerical values expressing the freshwater objectives in Table 3.11-1 need to be reassessed. Ms Jordan takes the view that the plan objectives being addressed in this hearing stream should be amended to reflect the values, so that there is a better "*line of sight*"[45] between them. This is intended to support B+LNZ's ultimate position that there needs to be new freshwater objectives to better reflect the values, supported by an amended policy framework (some of which is addressed in this stream). With the use of

[44] See evidence to be called by Farmers 4 Positive Change, amongst others.
[45] See [96].

a sub-catchment focussed approach, tailored farm environment plans, a focus on natural capital (LUC) and flexibility for N discharges for extensive farming systems, it is thought that appropriate freshwater objectives could well be achieved quicker and in a way that does not require the degree of land use change Dr Cox has modelled.

National Policy Statement for Freshwater Management

62. There were amendments to the NPSFM in 2017[46]. The amendments from the National Policy Statement for Freshwater Amendment Order 2017 took effect on 7 September 2017, after PC1 was notified. So, which version of the National Policy Statement should be given effect to?

63. While there are conflicting authorities on this point, it is submitted you should prefer *Hawkes Bay and Eastern Fish & Game Councils* v *Hawkes Bay Regional Council*[47] where it was held the Board of Inquiry in the Ruataniwha Dam application should give effect to the most recent national policy statement when determining matters sent back to it, following successful appeals on points of law. That decision recognised the (then) implementation provisions of the NPSFM 2011 required action as promptly as possible and giving effect to the most current version better reflected the requirement in s 67(3)(a). The High Court found this was appropriate notwithstanding the consequence that parts of the plan would be giving effect to the NPSFM as it was pre-amendment (2011) and, for those matters successfully appealed, the 2014 version.

64. Here it is submitted that given the timing and notification, it is appropriate, in reliance on the High Court's above finding, to give effect to the document that most recently represents the direction set by Government for freshwater management.

65. Again, you will hear from a lot of counsel and witnesses on the NPSFM and what it requires of regional councils. As such I do not intend on

[46] See National Policy Statement for Freshwater Amendment Order 2017 took effect on 7 September 2017, well after PC1 was notified.
[47] [2014] NZHC 3191.

making extensive submissions on its content. Attached as Appendix 2 is a summary of the NPSFM framework.

66. The NPSFM imposes a discipline on councils to follow when setting freshwater objectives to maintain or improve water bodies. On the other hand, the Vision and Strategy is not so prescriptive. Its strategies are more general and do not provide a process for Councils to go through. The value identification and reliance on attributes in the NPSFM is not inconsistent with the approach in the Vision and Strategy and is an appropriate plan-making tool for PC1.

67. The potential difference between the two comes with the Vision and Strategy's reference to the health and wellbeing of the Waikato and Waipā Rivers. Health is not necessarily the same as water quality. Ms Jordan in her evidence explains why they are different and what each is trying to achieve[48].

68. In addition, it is understood that Central Government has recognised the suite of attributes in the NPSFM are narrow and do not encompass the full suite of parameters required to achieve objective A1[49]. As such the NPSFM is currently being reviewed with further amendments due for public consultation by mid year.

69. Ms Jordan goes on to make, it is submitted, a vital point when considering what you are to give effect to under the Vision and Strategy. Ms Jordan explains that a focus on water quality and, ergo, its improvement regardless of its current state, overlooks the values PC1 has identified the Vision and Strategy is, consistently with the NPSFM, providing for. To conflate health of the river with water quality, which is undoubtedly a part of it, just not the only part, does not consider the

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[48] Brief of Evidence of Corina Jordan at [86] – [91]

[49] To safeguard:

a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and

b) the health of people and communities, as affected by contact with fresh water;

in sustainably managing the use and development of land, and of discharges of contaminants.

other matters Dr Mueller's evidence opines are relevant when assessing the health of a waterbody[50].

70. To properly understand what the Vision and Strategy is referring to when it speaks to the health and wellbeing of the Waikato River, consideration of the values that should be provided for are informative. Those values are set out in 3.11.1 and 2 of PC1. This is why B+LNZ consider it helpful to incorporate reference to the values in the objectives and policies. As currently drafted PC1's objectives are silent on the values and instead focus on the "targets" in Table 3.11-1. The suite of objectives fall short of the integrated and holistic approach to the management of the health of the river, alongside the economic, social and cultural wellbeing of people and communities[51].

71. Attached as Appendix 3 is a marked up version of PC1 that identifies and consolidates the changes B+LNZ are seeking to the first part of Section 3.11, as set out in Ms Jordan's evidence[52]. It is noted that Ms Jordan has made slight amendments to her opinions on the drafting of objectives 2 and 4 as identified in the comments.

72. I also note that an amended Table 3.11-1 is not shown in the document. B+LNZ considers amendments to the Table are best completed after expert conferencing has been undertaken. As indicated in its memorandum on conferencing, it reserves its position to make further submissions on the Table at that time.

GIVING EFFECT TO THE VISON AND STRATEGY AND NPSFM

Efficiency and Effectiveness Analysis Under Section 32

73. Council's substantive duties when plan-making are not found in s 32. Section 32 is a process that requires Council to undertake and consider defined steps when assessing whether a plan change or other proposal ultimately achieves the purpose of the Act[53].

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[50] See [35] – [48] and summary in Ms Jordan's Evidence at [89], plus further submissions below.
[51] See Ms Jordan's evidence at [99].
[52] A Word version has been filed with these submissions.
[53] We are mindful in making a statement of the effect of *Environmental Defence Society Inc v NZ King Salmon Company Ltd* [2014] NZSC 41.

74. Under s 32 the report that is prepared and you examine assesses the objectives of PC1 to determine if they are the most appropriate way to achieve the purpose of the Act[54]. The NPSFM states objectives and policies that are relevant to achieving the purpose of the Act[55] and PC1 must give effect to the NPSFM. As stated above, for its part, the Vision and Strategy, which also must be given effect to by PC1, is consistent with the purpose of the Act and NPSFM. Therefore, the s 32 assessment should be informed by those documents.

75. The objectives may interrelate and overlap and therefore it is the objectives as a whole that are assessed.[56]

76. The evaluation of the objectives is followed by an assessment of the efficiency and effectiveness of the policies and rules to determine whether they are the most appropriate method for achieving the objectives, in light of costs and benefits and the risk of acting or not acting.[57] The policies and rules will be examined further in later hearing streams.

77. However, it is noted now that it is hard to see how the decision maker can, with any certainty, determine the efficiency and effectiveness of the rules when PC1 says those rules will not necessarily implement the objectives, with the exception of objective 4 (staged approach to meeting objective 1 and others). Reading the policy framework as a whole assists to some extent because of the intergenerational aspect of water quality improvement. However, as developed below, that is not the complete answer.

78. PC1 states the actual steps that will need to be taken will be subject to future Schedule 1 processes, but we (and it) do not know what the rules beyond stage 1 might provide for. Whether a 10% reduction can and should be achieved[58] and if that achieves and implements the objectives can be assessed in a s 32 sense, but future plan changes cannot.

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[54] Section 32(1)(a).
[55] See s 45A(1) RMA.
[56] *Rational Transport Soc Inc v NZ Transport Agency* [2012] NZEnvC 125.
[57] Section 32(1)(b).
[58] See objective 3.

79. The principle justification for the stage 1 improvements is a "*focus on actions, rather than measuring changes in water quality*". This, says the Council, is because the time it takes for changes in land use to be measurable in water quality[59]. The Report goes on to say the positive effect of this recognition and approach is that the social and economic changes that will be required will take time to implement effectively. However, we already know that the water in the Waikato and Waipā Rivers is degraded and what is likely causing the decline. There seems to be no reason not to grapple with the issue now and signal to the community what will be required over a longer timeframe than 10 years[60]. By limiting PC1's rule framework to 10 years the decision-maker cannot in any sensible way determine how efficient and effective those rules will be in achieving and implementing the objectives and giving effect to the Vision and Strategy.

80. Therefore, a significant cost of the proposed regime is the lack of certainty as to how the Plan will transition to the unidentified "future anticipated management approaches" referred to in objective 4. Ms Jordan identifies this as a planning issue in the context of the Vision and Strategy, NPSFM and RPS[61]. She goes on to conclude that:

> Asking people and communities to provide for their health and well-being in an information vacuum beyond a short-term horizon is, in my opinion, contrary to the principles of sustainable management. Through more traditional planning approaches this is not usually a problem because, in giving effect to the NPS-FM, the values are identified, and freshwater objectives, limits, and targets are set, including policies and methods that work toward them in 10 year blocks. PC1 however, has set out the 80-year freshwater objectives, and in so doing established the outcomes. While this may be of assistance in determining the trajectory of travel for water quality, it is not useful in a s32 sense because we cannot assess how effective the current provisions will be in reaching those ultimate outcomes. This is compounded because those most effected by PC1 cannot identify how its requirements (e.g. fencing) will affect them in the longer term i.e. if they will still be in business. As such I am unable to

[59] Section 32 evaluation at D.1 p94.
[60] This is a similar position to the Court's approach to the One Plan in response to arguments to defer the change to the rule regime based on the lack of scientific certainty, *Day v Manawatu-Wanganui Regional Council* [at [5-8].
[61] At [132].

> access the efficiency and effectiveness in this information vacuum, particularly in relation to the effect this plan change will have on communities' ability to provide for their health and wellbeing.[62]

81. As such it is B+LNZ's position that, even when read as a whole, the proposed staging in objective 4 does not fit, hand in glove, with objective 2 and may in fact undermine it. It is submitted that objective 4 can only be appropriate to the extent it is supported by greater certainty as to what the "anticipated further management approaches" will look like. The best way to do this is make some hard calls now and identify and signal more meaningful mitigations and rules required over a longer planning horizon.

82. PC1 leaves land users in an awkward and in many ways untenable position of having to plan for changes that have only been signalled in the most general of ways[63]. It is very difficult to see how the policies therefore achieve objective 2 while still protecting the relationship of the Region's communities with the Rivers, including the economic, social, cultural and spiritual relationships[64]. It is noted this is subtly different from being entitled to certainty[65]. It is about the efficiency and effectiveness of the provisions to achieve the objectives[66], notably 1 and 2.

83. B+LNZ understands what Council is trying to achieve in providing for a 10 year period, but considers it falls short of being a truly useful for land users to plan with confidence. Additionally, as noted by Ms Jordan[67], it is not clear how PC1 is giving effect to strategy (d) to develop and implement a programme of action for achieving the targets set to improve the health and well-being of the Waikato River.

84. The Council should signal its position for the longer-term more clearly, so people can be aware of and (if necessary) address the externalities of their activities within a clearly signposted pathway in the Plan. Anything else leaves people guessing, which is inconsistent with the

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[62] At [134].
[63] As identified in B+LNZ's submission, e.g. at paragraphs 10 and 19.
[64] See objective (d) Vision and Strategy.
[65] See *Rational Transport Soc Inc*.
[66] Section 32(1)(b).
[67] At [136].

recognition in the objectives of the Vison and Strategy of the relationship between the health and wellbeing of the Waikato River and economic, social, cultural and spiritual relationships[68]. At the very least in the s 32 evaluation the Council should have acknowledged the restrictions of limiting PC1 rules to a 10 year period. It has not done so.

85. The outcome of the Section 32 Report therefore must be flawed because it did not recognise in any meaningful way the inability to assess the efficiency and effectiveness of achieving the objectives of the Vision and Strategy and the NPSFM, as given effect to by objectives 1, 2 and 4 (relevantly) of PC1.

86. This is not a case where the decision maker can resolve such an error in the section 32 report easily. It is not procedural in nature, it is substantive. B+LNZ consider the errors identified above need to be addressed in this hearing process. Its evidence is that PC1 defers too much to the next round of plan changes. B+LNZ considers the risks of acting by indicating, say, the 30 year steps, outweighs the risks of effectively not acting by deferring management decisions to the next round of plan changes. This point has not been identified in the Section 32 Report and will be expanded on in later hearing streams.

Vision and Strategy's Focus on Health and Wellbeing

87. I understand Council's position to be that protection and restoration need to happen contemporaneously, which means that water quality (i.e. numerics) must improve, regardless of current water quality. It says the Vision and Strategy has more stringent water quality conditions that must be met than those under the NPSFM[69].

88. Objective A2 NPSFM[70] requires the maintenance *or* improvement of the quality of freshwater. On the other hand, objective a Vision and Strategy requires protection *and* restoration of the health and wellbeing of the Waikato River.

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[68] See objectives (b) – (e) and (j).
[69] Submissions of Counsel for WRC (as proponent) at [17].
[70] Amongst others including, objective A3.

89. Under the NPSFM whether maintenance or improvement of water quality is required depends on the values that are identified and the attribute states set. Because the Vision and Strategy uses the conjunctive "*and*" there is no apparent choice between protection and restoration of the health and wellbeing of the River.

90. It notable that it is the health and wellbeing of the Waikato River that is to be restored and protected. Only objective (k) specifically mentions water quality. Strategies (b) and (c) require the "*current health status*" of the River and targets to be developed to improve health and wellbeing using scientific methods and maaturanga Maori. Undoubtedly part of that is water quality, but other aspects to health and wellbeing are also relevant. As already discussed above, the health of a water body is broader than its water quality.

91. In her planning evidence Ms Jordan adopts a definition of water quality approved by the Board of Inquiry on the Tukituki Catchment Proposal, defining it by its desired end use[71]. In that case the Board concluded that an approach based on ecological *health* rather than toxicity is required to give effect to the NPSFM.

92. So, the NPSFM has a broader focus than water quality. It is submitted that to the extent health is to be restored in the Waikato River that it is appropriate to interpret it to be ecological health as contemplated by the NPSFM and explained in Dr Mueller's evidence, where the management of other parameters alongside nutrients are considered[72].

93. Wellbeing can possibly be considered a more amorphous term. The definition of wellbeing. "*the state of being comfortable, healthy or happy*", includes reference to health and wider elements of being[73]. For example, there are metaphysical elements[74] to the notion of wellbeing, as well as scientific measures.

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[71] At [155].
[72] At [38] – [39] and further submissions below.
[73] https://en.oxforddictionaries.com/definition/well-being accessed 20 March 2019.
[74] For example, as described and discussed in *Wakatu Inc v Tasman District Council* [2012] NZEnvC 75 from [11].

94. In *Re Meridian Energy*[75] the Court considered the words "health" and "wellbeing", in the context of their use in section 5 in a resource consent application for a wind farm, where it noted that how health effects can be considered under the RMA is unclear. The Court held there is a distinction between the two words in s 5. Social wellbeing, as a concept, is wider than health, but encompasses health within its definition[76]. However the Court ultimately decided that the definitions were not important to the case before it, so did not take the matter further.

95. While that decision is ultimately of limited help, it is nonetheless submitted the notion of wellbeing as inclusive of, but broader than, health is useful. Parliament clearly sought to ensure the community's responsibilities with the River are wider than a numeric representation of water quality, that is why it used the term "health and wellbeing". There are also other factors to be considered, including metaphysical factors and non-anthropocentric considerations too.

96. There is clear recognition of economic and social relationships in objectives (b) – (d). Those relationships are specifically recognised as dependent on the health and wellbeing of the Waikato River, objective (j). It is not accepted that it is as simple as saying economic considerations are subservient to the obligation to protect and restore the River, although there is undoubtedly an element of truth in that submission.

97. Rather it is a more nuanced relationship that has similarities to, and is consistent with, the sustainable management purpose of the Act. For instance, how can economic relationships with the River be protected if significant afforestation of the hill country is required to achieve the 10 year and 80 year outcomes as Dr Cox's modelling shows? Additionally, the evidence of Mr Beetham is that the first 10 years under PC1 will put hill country farmers out of business because of the combination of NRP, which for them is low due to the extensive nature of their farming businesses, and the increased costs of compliance with standards required by PC1, including fencing.

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[75] [2013] NZEnvC 59.
[76] At [257].

98. The vision is very clear that it seeks a healthy Waikato River that *sustains* abundant life and *prosperous communities*. That can simply not be achieved under PC1 as notified and, as such, it cannot be given effect to.

99. In *Day v Manawatu Regional Council,* the Court was satisfied that the approach in that case recognised the need for trade-offs between what would be an ideal ecological outcome and social, practical and economic considerations.[77] It is submitted that is what should be aimed for here.

100. It follows that B+LNZ does not agree with the interpretation of Council and the Reporting Officers that the Vision and Strategy requires more stringent water quality outcomes than the NPSFM and that, therefore, those documents are inconsistent. Counsel has had the benefit of seeing Dr Somerville QC and Mr Daya-Winterbottom's submissions on this point from their [95] and those submissions are respectfully adopted and not repeated here.

Can objective (k) be given effect to?

101. I do want to address objective (k) Vision and Strategy. It is submitted the direction in *King Salmon* should be applied and careful attention payed to how objectives are expressed.

102. The NPSFM, is in some ways more aspirational than the Vision and Strategy because it seeks primary contact in 90% of rivers and lakes much sooner (2040) than that the 80 year targets (2096) in the Vision and Strategy, which is potentially a much steeper trajectory of change. The difference is that the NPSFM recognises in objective A3 that there are areas where natural processes mean achievement of this outcome is not possible.

103. On its face it is submitted there is an inconsistency between these two objectives. Objective (k) requires swimmability and the ability to take

[77] See [5-155].

food over its entire length, however the NPSFM recognises that this may not be possible.

104. Council's witness, in answers to questions from the Panel, stated natural processes mean achievement of objective (k) is not possible. Dr Dada has given evidence that the *E.coli* freshwater objectives are not achievable. However, that does not mean the River is unhealthy or unwell (i.e. low wellbeing).

105. When read alongside objectives (a) and (h)[78] it is submitted that the objective can and should be read to acknowledge that it is the effect of human activities on the River that PC1 is seeking to control. Where there are natural processes that mean the water quality is degraded, that does not mean the health of the River is compromised and that it cannot sustain abundant life and prosperous communities as sought in the vision. Therefore objective (h) considered against those matters is not as directive as it may seem on its face. It is more of an aspirational objective that will be pursued[79] in the context of the above limitation.

Objective (j)

106. Objective (j) sends an important signal in Vision and Strategy. The correct version of that objective provides:

> The recognition that the strategic importance of the Waikato River to NZ's social, cultural, environmental, and economic wellbeing *requires* the restoration and protection of the health and wellbeing of the Waikato River [emphasis added][80].

107. The objective leaves no doubt that the restoration and protection of the health and wellbeing of the River is a necessary part of the strategic importance of the social, cultural, environmental, and economic wellbeing it provides for. I have been unable to find any discussion that

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[78] The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.
[79] See Vision and Strategy at (3) "*In order to realise the vision, the following objectives will be pursued*" [my emphasis].
[80] See Schedule 2 to the Waikato-Tainui Raupatu claims, (Waikato River) Settlement Act 2010 for example and the Vision and Strategy as incorporated into the RPS at page 2-2. Other version refer to those matters being "subject to" the restoration of the health and wellbeing, which is a more directive requirement.

explains the basis for this objective, but it reads like a statement of fact, that must be recognised in subservient plans. If the life-supporting capacity of the Waikato River is not provided for the other (integrated) parts of s 5 cannot be met.

108. When analysed through the lens of the two limbs of s 5, which are to be achieved at the same time and in a way that protects the ability for future generations to provide for their health and wellbeing, it is submitted objective (j) can be understood to highlight that fundamental proposition in the RMA. This, in turn, is submitted to be completely consistent with the direction that is set initially, and prominently, in objective (a) that the health and wellbeing of the River is to be restored and protected.

109. This means that objective (j) should be interpreted in a way that ensures consistency with the balance of the Vision and Strategy's objectives, notably (b) – (d), which require protection of economic, social, cultural and spiritual relationships. The adoption of 1863 water quality standards is shown by B+LNZ's evidence to fail to protect those relationships because it will undermine them to such an extent that they will cease. That is not the same as recognising that some land use will need to change and there will be some "pain".

SPECIFIC COMMENTS ON PC1

PC1's Identified Values

110. Ms Jordan's opinion is that the values identified in section 3.11.1 are appropriate and recognise and provide for sustainable management[81].

111. However, PC1 should have also applied the values when identifying the environmental states, particularly with the 80 year freshwater objectives. When identifying those states, the Section 32 Report only identifies three values, swimmability, mahinga kai and maintaining a healthy biodiversity: presumably based on objective (k). There are two issues:

    (a) The mahinga kai value appears to be somewhat abstract and based on a notion that pristine water quality at 1863 levels is

[81] See [95].

required. However, the value should more properly be based on those species that comprised the ancestral diet. Water quality parameters should therefore be set to provide for those species on a more precise basis; and

(b) Significantly, other values in the section appear ignored. Notably those values that provide for human relationships that address individual and community well-being.

112. It is noted at this stage that ecological health does not mean pristine. Ecological health must provide for life-supporting capacity, but it is not mutually exclusive and can provide for economic, spiritual and social relationships. Providing for ecological health is a scale based on the values that are identified. The scientific evidence is that the whole river is not degraded. Therefore, the degree of improvement in order to safeguard the life supporting capacity of the River and to provide for its health is variable.

Grandparenting

113. While the NRP will be substantively addressed in later hearing streams, I do want to address it briefly.

114. In *Day v Manawatu-Wanganui Regional Council* the Court examined "grandparenting" of nitrogen losses. The Court provided the following definition of grandparenting:

> Grandparenting, taken literally in the RMA context, means allowing existing operators to carry on producing current levels of effects, particularly adverse effects, and imposing restrictions upon new entrants to whatever activity is being dealt with.[82]

115. As a result, grandparenting tends to be favoured by existing users, and those with high levels of leaching / contaminant losses. Grandparenting of existing levels will not aid in reducing the levels of contaminant losses and improving water quality.

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[82] At [5-128]

116. The Court regarded grandparenting as an "unattractive" option as it fails to provide an incentive to reduce leaching[83]. Further, the Court held it was "administratively inefficient" for each property and its history to be assessed in order to ascertain its entitlements[84].

117. These observations are apposite to PC1, particularly in respect to its lack of incentive to reduce, in this case, nutrient discharges. It is the position of B+LNZ that the reality is the red meat sector has demonstrated that its growth, resilience and adaptability, is not dependent on an ever-increasing environmental footprint[85]. However, the proposed approach in PC1 does not recognise the need to spread the load of paying for the externalities of diffuse discharges across the entire region and its sectors. Dr Chrystal's[86] and Mr Parkes'[87] evidence points to the different nutrient contributions between the sheep and beef and dairy sectors. The NRP, put simply, lacks sophistication in this regard. This may be what the Officers in the s 42A report are driving at too.

Table 3.11-1

118. It is submitted that Table 3.11-1 are freshwater objectives. Freshwater objectives are defined in the NPSFM as describing an intended environmental outcome for a freshwater management unit. While the Table also has some similarities to targets, in that it includes a defined timeframe (10 and 80 years), a target only applies in the context of over-allocation and there are parts of the River that cannot be said to be over-allocated, which is recognised in the explanatory note to the table[88]. Therefore, it is submitted that the Table can more accurately be said to describe intended outcomes

119. It is submitted that Table 3.11-1 does not consider the full range of parameters that should be managed for ecological health and processes. There are significant flaws in the table, which are discussed

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[83] At [5-177]
[84] At [5-177]
[85] See Mr Burtt's evidence at [59] for instance.
[86] See paragraph 125 below.
[87] At [35].
[88] At p63.

and identified, inter alia, by Dr Mueller and Dr Dada. Their evidence notes the following matters are not addressed[89]:

(a) Habitat – habitat as an indicator for ecological health provides a management tool that can make a real difference, particularly with agricultural land. Farmers can manage for ecological health through habitat by riparian planting, critical source flow pathways etc[90];

(b) Macroinvertebrate Community Index (MCI) – the MCI is the primary indicator of ecological health. It is an integrative ecological indicator, in other words it looks at the full picture because the macroinvertebrates show a response to stresses over time and space[91];

(c) Dissolved oxygen – dissolved oxygen is appropriate because it is also an integrated measure of ecological health and processes. Dr Mueller described its importance for metabolic processes (breathing) in waterways[92].

120. As indicated earlier B+LNZ wish to wait for the outcome of expert witness conferencing before proposing specific amendments to Table 3.11-1. However, in the meantime it can be indicated that it seeks the following relief:

(a) Removal of those parameters that cannot be achieved or make no difference to ecological health;

(b) Provide farmers, through habitat parameters principally, something tangible they can work to. The importance of engagement of farmers is highlighted in the evidence of Mr Parkes and Mr Beetham;

(c) A wholesale review of the table because, as it stands, all we can be sure of is that it is incomplete.

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[89] Evidence in Chief of Dr Hannah Mueller at [38].
[90] Evidence in Chief of Dr Hannah Mueller at [43].
[91] Evidence in Chief of Dr Hannah Mueller at [45].
[92] Evidence in Chief of Dr Hannah Mueller at [40].

The Modelling

121. In his evidence Dr Cox reveals a number of concerns with the modelling PC1 relies on. His concerns include:

(a) The use of outdated land use data[93] and incorrect nutrient leaching rates (export coefficients)[94];

(b) The failure to rigorously calibrate the models[95] and verify the model's accuracy for attenuation and lag[96];

(c) Lack of uncertainty and sensitivity analyses[97]. In his recent report[98] the Parliamentary Commissioner for the Environment examined modelling uncertainty, which asks if the scientific understanding of the system being modelled is accurately represented and the inputs reflect the real world[99]. While that report considered OVERSEER, the general observations are useful. Materially, the PCE said that uncertainty analysis should be used to estimate the likelihood the estimated values represent real world values and sensitivity analysis helps determine which parameters contribute the most to variations in results[100]. This led to his conclusion that a better understanding of uncertainty reduces discussions about the divergence from the "*real world*" and will focus energies on how the model can most effectively be used[101]. Dr Cox's criticisms are consistent with the PCE.

(d) Lack of transparency, which was likewise identified by the PCE as important, where he said

> For models used in environmental regulatory decision-making, high standards of transparency are important… [those] affected by

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[93] At e.g. [140] and [142](l).
[94] At [124] – [127].
[95] At [131] and [139].
[96] At [139] – [141].
[97] At [52].
[98] *Overseer and regulatory oversight: Models, uncertainty and cleaning up our waterways* (Parliamentary Commissioner for the Environment, December 2018).
[99] Ibid. p19.
[100] Ibid, p36.
[101] Ibid. p121.

regulations have a right to understand the basis on which regulations are made[102].

122. Dr Cox calls the uncertainty "*relatively high compared to most published catchment water quality modelling studies*"[103]. His concerns demonstrate one of the reasons B+LNZ, on behalf of its levy payers is so troubled by PC1: the uncertainty that is apparent in the science. This is another reason why it is impossible for farmers to make confident investment decisions.

123. The inability to fully interrogate the model led Dr Cox to construct alternative models to test the PC1 models against. That modelling demonstrated the scale of the land use change required to achieve the freshwater objectives, which would be particularly significant without considerable reductions in point source discharges. He tells us that above Waipapa effectively full afforestation and retirement from agriculture would be required[104].

124. In Dr Chrystal's evidence she opines that the N leaching losses for the sheep and beef and dairy sectors have been underestimated in PC1. This means that true relationship between land use and water quality cannot be determined.

125. Dr Chrystal states that the base values used in the modelling for dairying are methodologically unsound because they were obtained from aggregating data from a nationwide Dairy NZ study and then reducing it to a subset of 26 farms to represent the Waikato[105]. B+LNZ faced difficulties in getting the supporting information that sits behind the representative dairying data to analyse that approach. Nonetheless, she has still been able to assist by recommending the same approach as she used to calculate amended losses from the sheep and beef sector. She recommends the use of data from a range of actual farms

[102] Ibid, at p81.
[103] At [132].
[104] At [27] and [103].
[105] At [162].

that are statistically representative of farms in the region to give a more reliable estimate of losses[106].

126. Despite these restrictions, Dr Cox was able to demonstrate the higher relative cost effectiveness of dairy farms reducing their nutrient loads, as compared to dry stock. He concludes that for the same mitigation effort there would be a higher reduction of leaching from dairy farms compared to dry stock farms[107].

Sub-catchment Approaches

127. B+LNZ seek regulatory recognition and support for sub-catchment and tailored farm-specific approaches in PC1.

128. At paragraph 140 of Ms Jordan's evidence she recommends a change to Section 3.11 at the third page numbered page 4 in Appendix 3 to provide for this approach[108]. This change is to recognise the evidence of Messrs Burtt and Parkes as to the effectiveness of a focus on sub-catchment management. Notably Mr Parkes tells us in his executive summary:

> Sub-catchment planning allows for the identification of risk at the catchment scale and translates it into targeted on-the-ground action, which is more efficient and effective than methods that approach risk at a larger, regional, scale. It also enables those implementing the change to understand why the changes need to be made and to have a say in designing solutions. This brings with it both individual and collective ownership of the issues and the solutions. This means that change is more enduring, and outcomes are more likely to be achieved (OECD, 2017).[109]

129. His evidence on how those implementing the changes are enabled to understand why the changes are being made is consistent with strategy (h) of the Vision and Strategy. He goes on to say:

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[106] At [167].
[107] At [102].
[108] The change sought is perhaps not clear in the evidence.
[109] At [22] summarizing his evidence from [82].

> In my opinion participatory approaches such as sub-catchment management are essential to achieving long-term goals. They allow for the identification and implementation of innovative solutions. When individuals have little or no involvement in the change process then there is little ownership of the solutions and the regulatory bottom line becomes the focus (OECD, 2017).[110]

130. It is submitted the last sentence deserves particular attention. The Vision and Strategy has a focus on the relationships between people and the River. That relationship is not best served by a focus on regulatory bottom lines, and, in fact, it would not give effect to this element of the Vision and Strategy at all.

131. It is not accepted that the sub-catchment approach will lead to the issues identified by the s 42A report officers. I, respectfully, had some difficulty understanding what the concern was. As stated by Ms Jordan:

> Solutions would be found that are spatially explicit and more efficient and effective at achieving freshwater objectives, at a broad range of scales rather than the current one size fits all approach proposed in PC1.[111]

132. There is no suggestion that a sub-catchment approach would do anything other than seek to achieve the freshwater objectives. It is not contrary to the focus on cumulative effects in the superior planning instruments. Cumulative effects relate to the gradual build-up of adverse effects, which are added to existing effects and therefore contemplated by the definition in s 3[112]. Provided the *regulation* at sub-catchment level recognises it is part of an FMU (perhaps in the setting of the freshwater objectives) then it is submitted no conceptual difficulty exists. PC1 already contemplates sub-catchments as the "*basic spatial unit for analysis and modelling*"[113]. Practically it is hard to see how there can be any difficulty recognising cumulative effects when there is already analysis being undertaken at a sub-catchment level.

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[110] At [87].
[111] At [123]
[112] See *Dye v Auckland RC* [2002] 1 NZLR 337 and *Kuku Mara Partnership v Marlborough DC* (2005) 11 ELRNZ 466.
[113] Glossary at p93.

133. While the Vision and Strategy refers to restoration *and* protection, there comes a point where water no longer needs to be restored (i.e. bring back or re-establish) and protection only is required. Where freshwater objectives are met, there is no need for restoration, protection is what is required. Under the NPSFM this is made clear in the Preamble[114] where it recognises the ability for there to be variability, provided the overall water quality is maintained in the FMU. It is submitted this approach is open to you under the Vision and Strategy too, because its focus is on the Waikato River's health and wellbeing. If those objectives are being achieved, then there is no bar on a sub-catchment based approach.

134. Further evidence will be called in subsequent hearing streams to expand and particularise B+LNZ's position.

EVIDENCE

135. B+LNZ will be calling:

(a) Sam McIvor - Chief Executive B+LNZ;

(b) Dr Hannah Mueller - Ecologist;

(c) Dr Chris Dada - Environmental Health Microbiologist;

(d) Andrew Burtt - Chief Economist B+LNZ;

(e) Dr Jane Chrystal - Environment Data Analyst B+LNZ;

(f) Dr Tim Cox – Water Resources Engineer;

(g) Richmond Beetham – Consultant (sheep and beef farms);

(h) Richard Parkes – Environment Capability manager B+LNZ;

(i) Dr Gerry Kessels – Ecologist;

(j) Corina Jordan - Environmental Policy Manager B+LNZ.

[114] At p5.

136. Dr Dada's evidence has been briefed to address matters relating to hearing streams 1 and 3, notably the effectiveness of fencing for management of pathogens. This was done as a matter of necessity to ensure that evidence could be understood properly and was not incomplete or unclear. Dr Dada will be made available again at later hearing streams to address the issues that go beyond this hearing.

137. B+LNZ's evidence will be called as follows, after Mr McIvor's evidence it has five parts:

(a) Dr Mueller and Dr Dada will give evidence on the water quality outcomes B+LNZ say should be sought to provide for ecological health and processes to be set out in Table 3.11-1;

(b) Mr Burt and Dr Chrystal then provide you with a profile of the sheep and beef sector plus evidence on farm system risks and opportunities. Their focus is on what happens on the land;

(c) The second part of Dr Chrystal's evidence and the first part of Dr Cox's is commentary on the inputs used and reliability of the TLG models informing PC1. Then Dr Cox and Mr Beetham give evidence on the implications of PC1. Dr Cox models the relationship between land use and water quality outcomes, both as proposed by PC1 and as promoted by B+LNZ. Mr Beetham gives descriptive evidence of the implications of PC1. It is noted that Mr Beetham will be giving his evidence as part of the Hill Country Farmers Group's case tomorrow;

(d) Mr Parkes and Dr Kessels provide evidence on the framework on alternative management responses to address the evidence that has preceded them. This evidence is intended to inform the effectiveness and efficiency consideration under s 32; and

(e) Finally, Ms Jordan provides evidence on the best planning response to the issues identified above.

C Thomsen
Counsel for Beef + Lamb New Zealand Ltd
26 March 2019

Appendix 1

B+LNZ Submissions[115] Summary – Hearing Stream 1

Submissions on Plan Change 1

Provision being appealed	Relief Sought	Grounds / Part of submissions that addresses the issue
General / All	Withdraw the Proposed Waikato Regional Plan Change 1 in its current form.	General submissions: [1] Concern about how the Vision and Strategy for Waikato River is being given effect to through PC1.
General / All	PC1 be amended and re-notified inclusive of: (i) all previous withdrawn areas; (ii) with an amended and strengthened sub catchment approach; (iii) modified objectives, policies, rules and methods applying to the management of nitrogen; and (iv) Amended stock exclusion policies and methods that are the same as the proposed national regulations	General submissions: [2] Support sub-catchment approach, but considers significant amendments needed to ensure that PC1 enables and supports sub catchment approaches in an efficient and effective manner.
General / All	"Primary focus" is seeking changes to ensure that PC1: (i) safeguards the life supporting capacity and ecosystem health of freshwater;	

[115] Primary submissions are summarised only.

	(ii) recognises and provides for sustainable agricultural land uses; (iii) gives effect to the RMA and NPSFM and works towards achievement of the Vision and Strategy for the Waikato River; (iv) establishes a clear pathway that provides individuals and communities certainty about what will be required of them in order for the Vision and Strategy to be achieved in a way that is consistent with the principles of sustainable management; (v) ensures that water quality is at a minimum maintained, and where degraded is improved; (vi) ensures that the assimilative capacity of water is allocated efficiently, including the allocation of nutrient discharge authorisations, and where the assimilative capacity of water is over allocated that allocation is clawed back overtime; and (vii) sets numerical standards / limits / targets / for water quality, which safeguard the life supporting capacity and ecosystem processes of freshwater, and provide for the economic, recreational, cultural, amenity and intrinsic values of freshwater.	
Part A, Section 3.11, subheading: "Full achievement of the Vision and Strategy will be intergenerational", pg. 17	Amend paragraph 1: Removal of phrase "innovation gap" and removal of the reference to technologies / practices not yet available in sentence 3. Instead: "The 80-year timeframe recognises that full achievement of water quality outcomes set under Table 3.11-1 may require significant reductions in discharges from some land uses, in sub-catchments which are currently over allocated. As such	Table: B+LNZ has concerns that PC1 fails to provide sufficient certainty for communities or individuals on how land and water resources are to be managed to achieve the long-term objectives of the Plan and Vision and Strategy. Table: B+LNZ has concerns with the forced retirement of land – "Draconian", "short-sighted",

	timeframes should provide for investment in infrastructure, remediation, mitigation, innovation, and farm optimism…" Include new bullet point regarding taking a targeted and risk-based approach to managing land and water resources which is focused on sub catchments. Also delete bullet point 3 which references "a property scale nitrogen reference point" being established for each property. Amendment to bullet point 5. Amendment directed at Council enabling and supporting a sub catchment approach.	"unnecessary". Also inconsistent with the purpose of the RMA and NPSFM. General submissions, part 2: see paragraphs [5](iv), [6], [7], [10] for discussion regarding the need for certainty.
Section 3.11.1 Values & Uses for the Waikato and Waipa Rivers	Values should be incorporated in objectives. Seeking express link between the values and subsequent sections of the Plan to explain the relationship between the particular values and uses and the desired water quality outcomes. Include new Objective 1A or amend objectives to give effect to the following (note: this actually relates to the objectives set out in 3.11.2): Water Management Values: Surface water bodies are managed in a manner which safeguards their life supporting capacity and recognises and provides for the Values in Section 3.11.1.	Table: Clear link is needed between the issues, values objectives, politics and methods (including rules). Table: Discussion of the need for establishment of numerical standards within the plan – also discussed at paragraph 5(vii) of general submissions.
Section 3.11.2 Objectives	Amend existing Objectives / include new objectives: • Establish Freshwater Objectives based on freshwater values including cultural, recreational, and ecological values, along with consumptive values (ability to assimilate pollution, food production).	Table: Objectives are not consistent with Vision and Strategy and fail to give effect to RMA and NPSFM. See general submissions paragraphs [9], [11] and [23] onwards for discussion of not giving effect to RMA and NPSFM.

	• Change Table 3.11-1 numerical water quality targets to Freshwater Objectives or remove and hold as numerical freshwater objectives. • Recognise and provide for the establishment of collaborative sub-catchment groups. • Nitrogen allocation frameworks • Ensure resource use takes into account the natural capital of soils • Strengthen the requirements to provide for the economic and social wellbeing of people and communities. • Ensure limits and targets are set appropriately and enable the economic and social wellbeing of people and communities and ensure they are resilient, vibrant and future proofed.	General submissions relating to first bullet point: [25]: Objectives in PC1 do not reflect what is required by NPSFM Objective CA1 and Policy CA2 or Policy CA3. General submissions relating to second bullet point: [27]: The limits described in Table 3.11.1 do not meet the NPSFM definition of limits. General submissions relating to third bullet point: [2] amendments needed to ensure plan supports catchment approach in most efficient and effective manner. General submissions relating to fourth bullet point: [11](xvi): PC1 does not provide or encourage nutrient management or allocation that is based on the principles of sustainable management including providing for future generations, and which incentivise land use and land use change appropriate to soils, climate, and achievement of water quality outcomes, Nitrogen allocation and methods for managing Nitrogen should not reward current land uses and practices where nutrient discharges exceed the assimilative capacity of soils and water.
Objective 1: Long term restoration and protection of water quality for each sub-	Amend / new objective: Objective 1A Water Management Values: Surface water bodies are managed in a manner which safe guards their life supporting capacity and recognises and provides for the values in section 3.11.1	Table: As currently proposed, PC1 fails to provide a clear link between he values, objectives water quality outcomes in table 3.11.1 and the policies, methods and rules. Table: PC1 Objectives fail to recognise or provide for tailored sub catchment approach to land and water

catchment and FMU.	Objective 1B: Targeted and risk-based approach to managing land and water resources which is focussed on sub catchments.	management and recognition and protection of freshwater values including use values. Table: Objectives should clearly state what is to be achieved through resolution of a particular issue and should be clear enough to provide direction for policies, and subsequently methods and rules. Objectives should ideally state what is to be achieved, where and when. General submissions: [2]: Amendments needed to sub-catchment approach.
Table 3.11-1	Amend table so that the numerical outcomes recognise and provide for the values under section 3.11.1, Objective 1A. Set numerical outcomes at levels which give effect to NPSFM, in particular policies CA2 and CA3. Specifically consider the provision of economic wellbeing, including economic opportunities.	Table: Link needed between values, issues, objectives, policies and methods. Table: Establishment of numerical attributes / standards within the plan should give effect to the narrative within the RMA, ensuring that resources are utilised efficiently, and that the life supporting capacity of water and ecosystems are maintained and the needs of future generations met. Table: Where values are established in accordance with NPSFM they should be recognised and provided for through water quality limits / attributes. Table: Council has failed to recognise or provide for economic values when setting the numerical parameters in table 3.11-1, despite the Council having forecast that there will be significant economic implications in achieving the outcomes in table 3.11-1. Approach is therefore contradictory to NPSFM and

		s 32 of RMA and fails to give effect to the purpose of the RMA. Numerical outcomes in table 3.11-1 in respect to E-coli and clarity appear to apply irrespective of flow and therefore are not likely to be achieved even under pristine conditions. Therefore, achievement of table 3.11-1 outcomes cannot be achieved whilst also achieving Objectives 2 ("social, economic and cultural wellbeing is maintained") and 4 ("people and community resilience"). General submissions: [27], [30]
Objective 2: Social, economic and cultural well-being is maintained in the long term	Amend Objective 2 so it is explicit that the objective is to enable people and communities to continue to provide for their social, economic, and cultural wellbeing, to be resilient and vibrant, and to provide for future generations.	Table: PC1 fails to recognise, provide and protect the social and economic wellbeing of people and communities when seeking the restoration and protection of water quality. Therefore, primacy is given to the restoration and protection of water quality, to the detriment of people and communities.
New objective to be inserted regarding collaborative catchment groups.	Include new objectives which facilitate and support the establishment and operation of (sub)catchment groups to manage water quality and biodiversity issues facing a catchment. Amend PC1 so that it adopts and encourages a sub catchment approach. Amend PC1 to provide communities with certainty.	Table: PC1 as notified does not contain an explicit suite of provisions which effectively implement sub-catchment approaches. Table: There is a lack of mechanisms that recognise, incentivise and support community groups. Table: The most enduring and effective solution to water quality issues lies within Collaborative Catchment Groups working together with a desire to provide for healthy freshwater ecosystems,

	Amend Objective 4 or include a new objective to give effect to the following intent: Communities working together to sustainably manage land and water resources.	recreational and cultural values of freshwater, and healthy communities and economies targeted to the relevant priorities within their catchments. General submissions: [2]
Objective 3: Short-term improvements in water quality. Amendments to table 3.11-1	Amend objective 3 so it provides for tailored sub-catchment approaches as issues may vary across sub-catchments (e.g. some will have an issue with nitrogen, others with sediment). Delete reference to 10% of the required change. Amend table 3.11-1 so that the interim targets and timeframes recognise and provide for the economic and social well-being of people and communities.	Table: people and communities need certainty. Objective 3 as it currently stands provides no certainty for farmers. Objective 3 does not give effect to the requirements of the RPS to provide for the continued operation and development of regionally significant primary industry activities. Table: The 10% change is arbitrary and not based on ecological thresholds. General subs: [5](iv): need for certainty. General subs: [6]: PC1 does not provide certainty, especially for farmers. General submissions [10]: Plan fails to provide sufficient certainty for communities or individuals on how land and water resources are to be managed to achieve the long-term objectives of the Plan and the Vision and Strategy. Outcome of the plan is a climate where the agricultural sector in particular has no certainty in relation to the future of their businesses or their communities.

Objective 4: People and community resilience Amendments to table 3.11-1	Include new objective providing for people and community resilience, adaptive management and sub-catchment approaches lead by communities. Delete reference to staged approach and future plan changes. Amend Objective 4 so that there is reference to communities working together to sustainably manage land and water resources in their sub-catchments. Amend table 3.11-1 so that the interim targets apply at a longer timeframe such as 30 years, for those parameters which are significantly over allocated now. Amend table 3.11-1 and objective 4 so that PC1 provides a pathway for individual and communities to work together to achieve the Visions and Strategy over the long term.	Table: Failure to provide certainty. Table: Objective 4 fails to recognise sub catchment specific conditions including the fact that not all sub catchments are over allocated for all contaminants. Table: PC1 fails to provide a pathway for communities to work together and achieve the Vision and Strategy as is required. Table: enforcement of the rules as currently proposed will reduce farm profits, land values and community viability making objective 4 unachievable. General submissions: [5](iv): need for certainty. General submissions: [6]: PC1 does not provide certainty, especially for farmers.
New Policy	New policy to give effect to Objectives 1A and 1B.	Table: PC1 fails to provide a clear link between the values, freshwater objectives, table 3.11-1 and the rules and methods. Table: Policies as proposed fail to provide clear course of action.

Submissions on Variation 1

Provision	Relief Sought	Grounds
General / All	Primary focus is seeking changes to proposed Variation 1 to ensure the proposed Plan: • Safeguards the life supporting capacity and ecosystem health of freshwater; • Recognises and provides for sustainable agricultural land uses; • Gives effect to the RMA, NPSFM and works towards achievement of the Vision and Strategy; • Establishes a clear pathway that provides individuals and communities certainty about what will required of them in order for the Vision and Strategy to be achieved in a way that is consistent with the principles of sustainable management; • Ensures that water quality is at a minimum maintains, and where degraded is improved; • Ensures that the assimilative capacity of water is allocated efficiently, including the allocation of nutrient discharge authorisations, and where the assimilative capacity of water is overallocated that allocation is clawed back overtime; • Sets numerical standards / limits / targets / for water quality, which safeguard the life supporting capacity and ecosystem	General submissions: B+LNZ supports the sub catchment approach to sustainable and integrated management of land and water resources but considers that amendments are needed to PC1 and V1 to ensure that the plan enables and supports sub catchment approaches in an effective and efficient manner.

	processes of freshwater, and provide for the economic, recreational, cultural, amenity and intrinsic values of freshwater.	
General / All	Plan needs to give effect to the RMA and therefore is required to: • Address the regionally significant natural resource management issues faced by the Waikato and Waipa Catchments; • Ensure that the region's land and water resources are sustainably managed including providing for the social, cultural and economic wellbeing of people and communities, and future generations; • Achieve integrated management of natural resources; • Include objectives which are the most appropriate way to achieve the purpose of the Act; • Include policies to implement the Objectives, and rules (which may also include methods) which implement the policies, such that the Objectives of the Plan are achieved; • Give effect to the Operative Regional Policy Statement; • Give effect to the NPSFM.	
	PC1 and V1 be amended and re-notified inclusive of:	General Submissions: • [34]: Lack of clarity within V1 around what is considered to be a freshwater objective or a

	• With an amended and strengthened and sub catchment approach; • Modified objectives, policies, rules, and methods applying to the management of nitrogen; • Amended stock exclusion policies and methods that are the same as the proposed national regulations • Establishment of numerical water quality outcomes which provide for the ecological health of freshwater, as well as economic and social wellbeing of communities, rather than as a reflection of water quality present in 1863 as is currently reflected in the 80-year water quality outcomes in table 3.11-1.	limit or target, and failure to establish freshwater objectives and attributes. • [35]: Freshwater objectives established in V1 do not reflect values of freshwater including notional values and do not recognise regional and local circumstances, as is required by NPSFM. • [36]: Table 3.11-1 has not been developed in accordance with Policy CA2 and therefore is contrary to the requirements of NPSFM. • [37]: The limits as described in Table 3.11-1 do not meet the definition of limits in the NPSFM.
	Land Use Capability (LUC) be applied in proposed Variation 1 and PC1 as the allocation method rather than grandparenting low leaching land uses to their Nutrient Reference Point (NRP). All references to LUS should be deleted (Policy 2 and 7, Rules 3.11.5.2 to 3.11.5.7, Schedule B and all other areas in the plan which refer to the NRP).	
Section 3.11.1 Values	Retain the values incorporated through V1, but also retain the relief set out in submissions on PC1.	Reasons set out in PC1 submissions.
Section 3.11.2: Objectives	Relief as set out in PC1 Amend existing objectives and include new objectives:	Reasons set out in PC1 submissions. Objectives are not consistent with the Vision and Strategy and fail to give effect to the RMA and NPSFM.

	• Establish freshwater objectives based on values of freshwater (cultural, recreational, ecological and consumptive values). • Change table 3.11-1 numerical water quality targets to Freshwater objectives as appropriate. • Recognise and provide for the establishment of sub catchment groups. • Ensure resource use is efficient – establishment of nitrogen allocation frameworks. • Ensure resource use takes into account the natural capital of soils. • Strengthen the requirements to provide for the economic and social wellbeing of people and communities. • Ensure limits and targets are set appropriately and enable the economic and social wellbeing of people and communities.	
Table 3.11-1	Relief as set out in PC1. Amend Table 3.11-1 so that the numerical outcomes recognise and provide for the values under section 3.11-1 and objectives under 3.11.1. Set numerical outcomes at levels which give effect to the NPSFM, in particular policies CA2 and CA3.	Table: Council has failed to recognise for economic values. Table: numerical outcomes relating to E. coli and clarity apply irrespective of flow and therefore are not achievable even under pristine conditions.

	Adopt numerical limits that are appropriate to achieving desired outcomes, rather than at levels reflective of 1863. Changes suggested in relation to E. coli and water clarity. Suggested changes in relation to Upper Waikato River, Middle Waikato River and Lower Waikato River.	

Appendix 2

NPSFM Summary

Freshwater Objectives Policy Framework (water quality)

1. Freshwater objectives are set for freshwater management units. The objectives are based on values, attributes and attribute states (present and future). The attributes are monitored to ensure the values and objectives can be met. Regional Councils are to have methods (e.g. action plans) set out for what is to happen if the objectives are not being met.

2. In conjunction with the freshwater objectives, regional councils are to set limits (see Policy A1 and Policy CA2(f)(iii)). Limits set the maximum amount of resource use available, which allow a freshwater objective to be met.

3. Where freshwater management units do not meet the freshwater objective, regional councils are to set targets.

AA: Te Mana o te Wai

4. Te Mana o te Wai is to be considered and recognised by Councils when making decisions about fresh water.

Objective AA1

5. To consider and recognise Te Mana o te Wai in the management of freshwater.

Policy AA1

6. By every regional council making or changing regional policy statements and plans to consider and recognise Te Mana o te Wai, noting that:

    1) Te Mana o te Wai recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people); and

    2) Values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of freshwater objectives and limits.

A: Freshwater Quality

7. This is the overarching section relating to water quality.

Policy A1

8. Under Policy A1[116] every regional council is to make or change regional plans that establish freshwater objectives in accordance with Policies CA1-CA4 and **set freshwater quality limits** for all freshwater management units to give effect to the objectives in the NPSFM, having regard to *at least*:

    1) The reasonably foreseeable impacts of climate change; the connection between water bodies; and

    2) The connections between freshwater bodies; and

    3) The connections between freshwater bodies and coastal water.

8.2. Regional councils are also to establish methods (including rules) to avoid over-allocation.

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

10. Policy A1 is linked to Policy CA2 (see below) which sets out a process for setting freshwater objectives.

Policy A2

11. Where freshwater management units do not meet the freshwater objectives made pursuant to A1, every regional council is to **specify targets** and implement methods (wither or both regulatory and non-regulatory), in a way that considers the sources of relevant contaminants recorded under Policy CC1[117], to assist the improvement of water quality in the freshwater management units, to meet those targets, and within a defined timeframe.

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

Policy A3

12. Regional councils are to impose conditions on discharge permits to ensure the limits and targets can be met.

13. Regional councils, where permissible, are to make rules requiring the adoption of the best practicable option.

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[116] NPSFM at page 12.
[117] Relates to establishing accounting systems

Policy A4

14. Policy A4 sets out a direction to regional councils under section 55. Sets a policy that is to be included in plans (inserted without using the Schedule 1 process) that will apply until the Schedule 1 process is used to change the plans to give effect to Policy A1 and Policy A2 (limits and targets).

Policy A5

15. Regional councils to identify specified rivers and lakes, and primary contact sites.

15.1. Specified rivers and lakes means

1) Rivers that are fourth order or above using the methods outlined in the River Environment Classification system, National Institute of Water and Atmospheric Research, Version 1; and

2) Lakes with a perimeter of 1.5 kilometres or more.

15.2. Primary contact site means:

1) Any part of a specified river or lake that a regional council considers is used, or would be used but for the existing water quality, for primary contact, and

2) Any other site in any other river or lake that a regional council has determined should be managed for primary contact.

Policy A6

16. Following the identification of specified rivers and lakes, regional councils are to develop **regional targets** to improve the freshwater in the specified rivers and lakes and contribute to achieving the **national targets** in Appendix 6.

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

CA: National Objectives Framework

17. Section CA sets out a process regional councils (RC) are to follow in setting freshwater objectives.

The Objective

18. Objective CA1:

"To provide an approach to establish freshwater objectives for national values, and any other values, that:

1) Is national consistent; and

2) Recognises regional and local circumstances."

The Policy Steps

Identifying freshwater management units

19. Under Policy CA1, regional councils must identify freshwater management units (FMU) that include all freshwater bodies within its region.

20. Freshwater management unit is defined as "the water body, multiple water bodies, or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management purposes."

Developing freshwater objectives

21. Following identification of FMUs, regional councils (in discussion with communities and tangata whenua) are to follow the process in Policy CA2 to develop freshwater objectives for all freshwater management units. The process in CA2 is:

    1) *National Values:* RC to consider all national values (set out in Appendix 1) and how they apply to local and regional circumstances.

    2) *Identify Values*: RC to identify the values for each FMU. These must include the compulsory values (Appendix 1: compulsory national values are ecosystem health and human health for recreation). RC may include other national values (Appendix 1) or other values that the regional council considers appropriate.

        (i) Value is defined as "any national value and includes any value in relation to freshwater, that is not a national value, which a regional council identifies as appropriate for regional or local circumstances (including any use value)".

    3) *Identify Attributes:* RC to identify applicable attributes. To provide for the values identified in (b), aspects of the freshwater environment need to be managed[118]. Therefore step (c) is

[118] Guide to NPSFM at page 71.

identifying attributes that need to be managed for the values identified in (b) to be met.

Attribute is defined as "a measurable characteristic of fresh water, including physical, chemical and biological properties, which supports particular values."

If the RC has identified values that are not provided in Appendix 2 (whether they are national values listed in Appendix 1 or other values) then the RC is to identify attributes that it considers appropriate for the values, it has identified.

4) *Assign Attribute State:* RC to assign an attribute state for the attributes in Appendix 2 at or above the minimum acceptable state for that attribute. When choosing the attribute state, Objective A2 requires water quality be maintained or improved. The minimum a freshwater objective can be set is the bottom of 'C' state (and this is only possible if the water is currently in C or D state). Freshwater objectives are not to be set in D state, even where the water is in this state at the time objective setting begins. However, there are exceptions to this in Policy CA3 or CA4 (see below).

5) *Formulate Freshwater Objective:* If the attribute state is specified in numerical terms in Appendix 2, then those numerical terms should be used. If the attribute is not listed, then use numerical terms if practicable (can use narrative terms if not practicable).

The attribute state must be set within, at least, the same state as currently exists.

Where an attribute applies to more than one value, the most stringent freshwater objective for that attribute is to be adopted.

6) *Other matters to consider:* When following the process in (a)-(e), RC's are to consider the following matters at all relevant points in the process:

(i) How to improve the quality of freshwater so it is suitable for primary contact more often;

(ii) How to enable communities to provide for their economic wellbeing;

(iii) The current state of the FMU, and its anticipated future state;

(iv) The spatial scale at which FMUs are defined;

(v) **The limits that would be required to achieve the freshwater objectives – Policy CA2(f)(iii):** This policy requires councils to consider the limits that may be required. Establishing limits will draw on the information generated from freshwater accounting (section CC) and the requirements of section B (water quantity) regarding setting environmental flows. Establishing the current state and use and anticipating future state and use will help regional councils identify appropriate limits needed to achieve the freshwater objective. The limit-setting process will be iterative to allow fully informed choices before decisions are made, taking into account the consequences of setting freshwater objectives and limits at certain levels.[119]

(vi) Any choices between the values that the formulation of freshwater objectives and associated limits would require;

(vii) Any implications for resource users, people and communities arising from the freshwater objectives and associated limits including implications for actions, investments, ongoing management changes and any social, cultural or economic implications;

(viii) The timeframes required for achieving the freshwater objectives, including the ability of regional councils to set long timeframes for achieving targets; and

(ix) Such other matters relevant and reasonably necessary to give effect to the objectives and policies in this national policy statement, in particular Objective AA1[120] and Objective A2[121].

Policy CA3

22. Policy CA3: May set the freshwater objective below the national bottom line for an attribute because:

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[119] NPSFM Guide at page 75.
[120] Objective AA1: To consider and recognise Te Mana o te Wai in the management of freshwater
[121] Objective A2: The overall quality of freshwater within a freshwater management unit is maintained or improved while:
a) protecting the significant values of outstanding freshwater bodies;
b) protecting the significant values of wetlands; and
c) improving the quality of freshwater in water bodies that have been degraded by human activities to the point of being over-allocated.

1) the existing freshwater quality is cause by naturally occurring processes; or

2) any if the existing significant infrastructure (that was operational on 1 August 2014) listed in Appendix 3 contributes to the existing freshwater quality; and

(i) it is necessary to realise the benefits provided by the listed infrastructure; and

(ii) it applies only to the waterbody, waterbodies or any part of a waterbody, where the listed infrastructure contributes to the existing water quality.

Policy CA4

23. A regional council may set a freshwater objective below a national bottom line on a transitional basis for the freshwater management units and for the periods of time specified in Appendix 4.

24. The following figure is a simple diagram of the process I have set out above. It is taken from the guide to the NPSFM.

Figure 2: The relationship between freshwater objectives, limits and methods

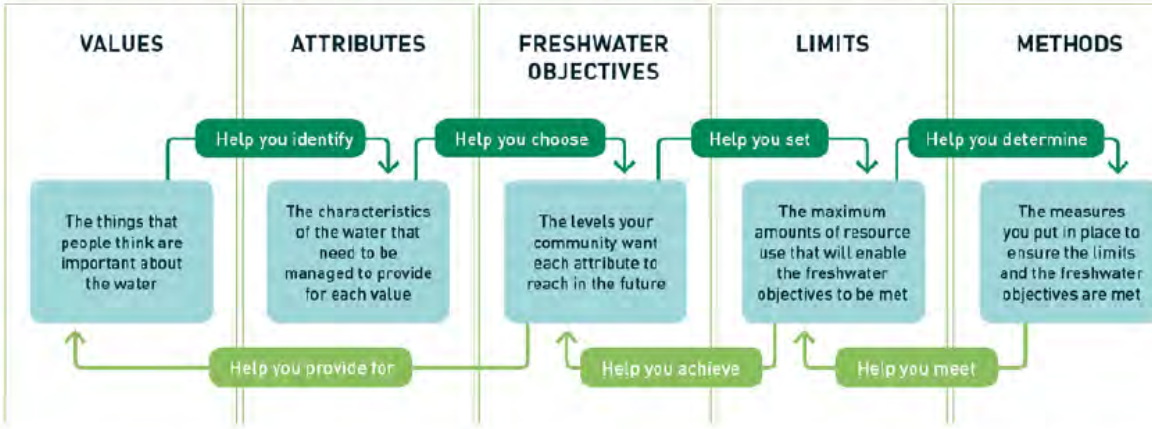

Figure 2 shows the relationship between freshwater objectives, limits and methods, and how the identification of values and attributes (using the process set out in Policy CA2) contributes to thei development. Each component of this chain helps to inform decisions about the next part. It is important to note, however, that in reality this is unlikely to be a linear, step-by-step process. At point councils will need to be consider how their decision would affect the following parts of the

chain (eg, what limit may be required based on what freshwater objective is chosen) and the most appropriate process is likely to be an iterative one where earlier decisions are revisited throughou

CB: Monitoring plans

25. This section connects to section CA.

Objective CB1

26. "To provide for an approach to the monitoring of progress towards, and the achievement of, freshwater objectives and the values identified under Policy CA2(b)."

Monitoring Plans

27. Under Policy CB1, RCs are to develop a monitoring plan that:

    1) Establishes methods for monitoring progress towards, and the achievement of, freshwater objectives established under the policies in section CA.

    2) Establishes methods for monitoring the extent to which the values identified under Policy CA2(b) are bring provided for in the FMU. Methods must at least include:

        (i) Surveillance monitoring of microbial health risks to people at primary contact sites;

        (ii) Monitoring of macroinvertebrate communities;

        (iii) Measures of the health of indigenous flora and fauna;

        (iv) Information obtained under (a) and the freshwater quality and quantity accounting systems developed under Policy CC1.

            A freshwater quality accounting system is defined as "a system that, for each FMU, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:

            a. loads and/or concentrations of relevant contaminants;

            b. sources of relevant contaminants;

            c. amount of each contaminant attributable to each source; and

            d. where limits have been set, proportion of the limit that is being used."

A freshwater quantity accounting system is defined as "a system that, for each freshwater management unit, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:

a. total freshwater take;

b. proportion of freshwater taken by each major category of use; and

c. where limits have been set, proportion of the limit that has been taken."

(v) Matauranga Maori.

3) Identifies a site or sites where monitoring will be undertaken. These sites should be representative.

4) Recognises the importance of long-term trends in monitoring results and the relationship between results and the overall state of fresh water in an FMU.

28. RCs are to take "reasonable steps" to ensure that information collected under Policy CB1 is publicly available.[122]

29. Under Policy CB2, RCs must establish methods (e.g. action plans) that respond to monitoring that indicate freshwater objectives will not be met and/or the values will not be provided for in an FMU.

30. Under Policy CB3 RCs must use the Macroinvertebrate Community Index (MCI) and establish methods under CB2 to respond to an MCI score below 80 or a declining trend. The methods must investigate the case of declining trends or a score below 80, seek to halt declining trends and seek to improve the score if it is below 80 (unless the score is below 80 because it is caused by naturally occurring processes, pests, or unwanted organisms, or Appendix 3 infrastructure.

Other sections of the NPSFM

31. B: Water quantity.

32. C: Integrated management.

33. CC: Accounting for freshwater takes and contaminants.

34. D: Tangata whenua roles and interests.

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[122] Policy CB4.

35. E: Progressive implementation programmes.

Appendix 3

B+LNZ Amendments to PC1 – Hearing Stream 1 Topics

Proposed Waikato Regional Plan Change 1 – Waikato and Waipā River Catchments

Tracked Changes Version Hearing Block 1 Recommendations Only

Red tracked changes are insertions or deletions to PC1

Black tracked changes are insertions or deletions recommended by the Council Officers

Blue tracked changes are insertions or deletions recommended by Corina Jordan

Important:

1. ***Relevant pages only (other pages will be addressed through future recommendations)***

3.11 Waikato and Waipa River Catchments/Ngā Riu o ngā Awa o Waikato me Waipā

Area covered by Chapter 3.11/Ngā Riu o ngā Awa o Waikato me Waipā

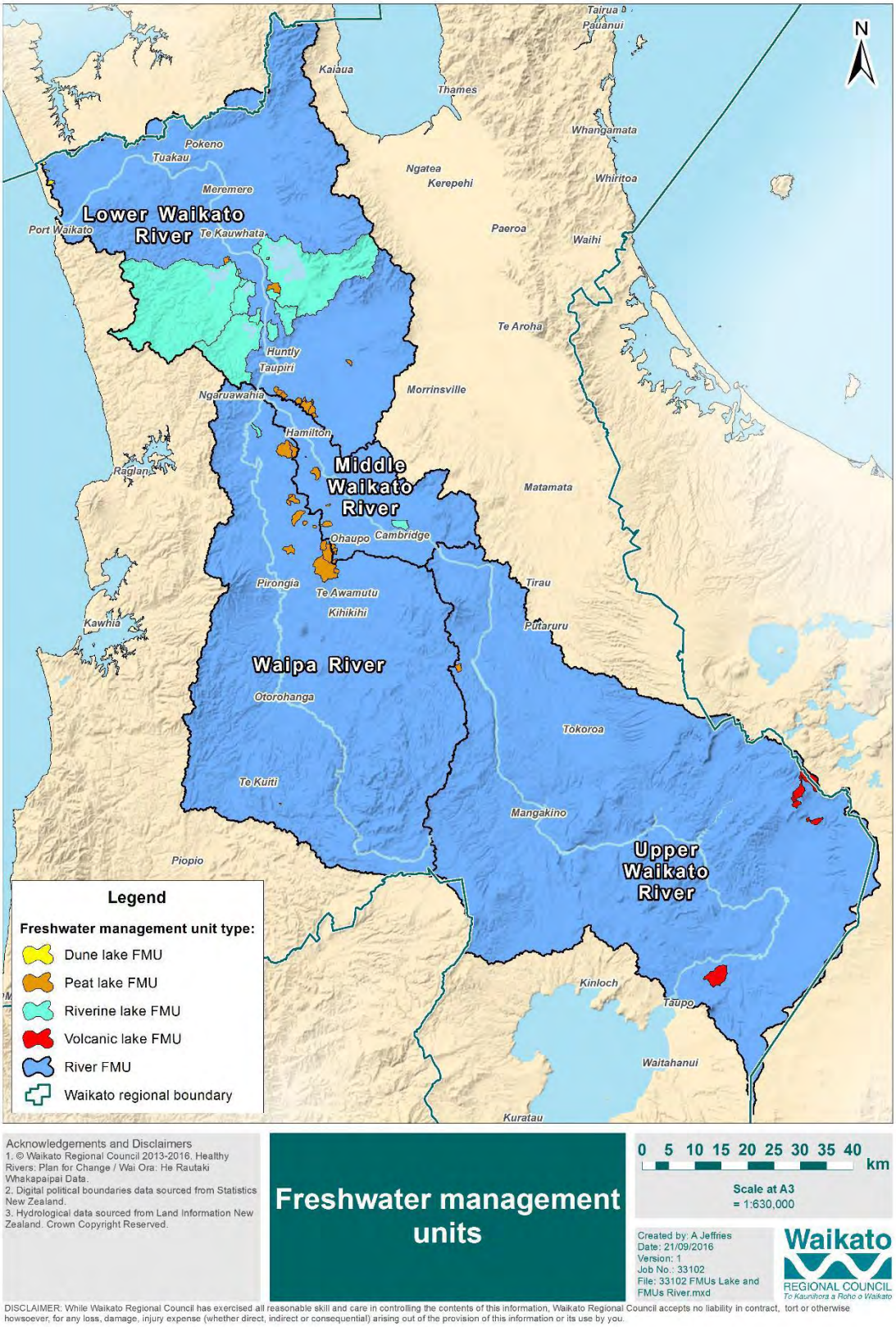
This Chapter 3.11 applies to the Waikato and Waipa River catchments. The map shown in Map 3.11-1 shows the general
catchment boundary. This Chapter is additional to all other parts of the Waikato Regional Plan. Where there are any inconsistencies, Chapter 3.11 prevails.

Map 3.11-1 shows the general catchment boundary and includes the boundaries of each Freshwater Management Unit^ (FMU): The FMUs are:

- Upper Waikato River
- Middle Waikato River
- Lower Waikato River
- Waipa River
- Peat Lakes
- Riverine Lakes
- Dune Lakes
- Volcanic Lakes

FMUs are required by central government's National Policy Statement for Freshwater Management 2014. FMUs enable
monitoring of progress towards meeting targets^ and limits^.

The Plan maps of the Waikato and Waipa River catchments are available electronically or for viewing at Waikato Regional Council offices on request.



Map 3.11-1: Map of the Waikato and Waipa River catchments, showing Freshwater Management Units

Updated map showing corrected regional boundaries, legend and lake colours to be inserted

Background and explanation

Co-management of the Waikato and Waipa Rivers

There are three River Acts that establish co-governance arrangements for the Waikato and Waipa Rivers and catchment. These are Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipa River) Act 2012.

The iwi partners in the development of Chapter 3.11 are Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui. The processes for preparing, reviewing, changing or varying the regional plan, in terms of River Iwi involvement in the process, is set out in the legislation. This includes a requirement for Council to establish a Joint Working Party with each of the River Iwi, the purposes of which include making joint recommendations to the Council regarding the plan change.

The three River Acts established the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato (Vision and Strategy) as the primary direction setting document for the Waikato and Waipa Rivers. The Vision and Strategy prevails over any inconsistencies in a national policy statement or New Zealand coastal policy statement, and is deemed to be part of the Waikato Regional Policy Statement.

The Vision and Strategy states that the Waikato and Waipa Rivers are degraded and require, amongst other things, restoration and protection. One objective[123] has been given particular focus for this chapter: The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length. The Vision and Strategy is being given effect to in Chapter 3.11 by:

- Reducing nitrogen, phosphorus, sediment and microbial pathogen losses from land
- Ongoing management of diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens
- Giving people and communities time to adapt to the requirements of Chapter 3.11 and supporting actions to achieve short-term objectives while being clear that further reductions in nitrogen, phosphorus, sediment and microbial pathogen losses from land will be required in subsequent regional plans
- Ensuring that Waikato Regional Council continues to facilitate ongoing research, monitoring and tracking of changes on the land and in the water to provide for the application of Mātauranga Māori and latest scientific methods, as they become available
- Preparing for future requirements on what can be undertaken on the land, with limits^ ensuring that the management of land use and activities is closely aligned with the biophysical capabilities of the land, the spatial location, and the likely effects of discharges on the lakes, rivers and wetlands in the catchment.

Collaborative approach

The co-governance partners agreed to adopt a collaborative approach to investigate and develop fresh water management approaches that would be implemented in the Waikato and Waipa River Catchments.

A key feature of the collaborative approach was the Collaborative Stakeholder Group (CSG), which represented stakeholders and the wider community in Healthy Rivers: Plan for Change/Wai Ora: He Rauaki Whakapaipai. The CSG was the central channel for stakeholder and broader community collaboration in the project. It intensively reviewed and deliberated on technical material from a group of external technical experts from a range of disciplines. For Proposed Plan Change 1 The CSG also sought input from their sectors and from the community, and ultimately proposed the contents of Chapter 3.11 to decision makers.

Consultation

Schedule 1 of the RMA includes requirements to consult with certain parties, including iwi authorities, during the preparation of the Variation. Consultation has taken place with affected parties including the relevant iwi authorities and the issues

raised during consultation have been taken into account by Waikato Regional Council in the development of Variation 1. Consultation has led to a Variation to Proposed Plan Change 1.

[123] Te Ture Whaimana o te Awa o Waikato, Objective K

Water quality and National Policy Statement for Freshwater Management

The National Policy Statement for Freshwater Management 2014 (NPS FM) requires regional councils to formulate freshwater objectives^ and set limits^ or targets^ (a target is a limit to be achieved within a specified timeframe). Regional councils must ensure over-allocation^ of the water resource is avoided, or addressed where that has already occurred.

Current water quality monitoring results show that while there is variability across the Waikato and Waipa River catchments, there are adverse effects on water bodies associated with discharges of nitrogen, phosphorus, sediment and microbial pathogens. The CSG concluded that from a water quality point of view, over-allocation^ has occurred. Water bodies in the Waikato and Waipa River catchments are not able to assimilate further discharges of nitrogen, phosphorus, sediment and microbial pathogens, without adversely affecting community-held values. Achieving the numeric, long-term freshwater objectives^ in Chapter 3.11 will require reductions in diffuse and point source contaminants.

The NPS FM directs the Waikato Regional Council to establish freshwater objectives^ that give effect to the objectives of the NPS FM and describe the state that Waikato regional communities want for fresh water in the future.

The NPS FM process followed in developing Chapter 3.11, included identifying FMUs and the values for each, and then choosing relevant water quality attributes^ and attribute states^ that can be monitored over time. Freshwater objectives^ and limits^ or targets^ set out what is required to achieve the attribute states^. Under the NPS FM, a limit^ is the maximum amount of resource use available, which allows a freshwater objective^ to be met.

The CSG identified resource use that affects the achievement of the freshwater objectives^ and long-term desired water quality, and for achieving the Vision and Strategy. Chapter 3.11 sets out policies and methods that restrict what can be done on the land and discharged to land or water.

Full achievement of the Vision and Strategy will be intergenerational

The CSG has chosen an 80-year timeframe to achieve the water quality objectives of the Vision and Strategy. The timeframe is intergenerational and more aspirational than the national bottom lines set out in the NPS FM because it seeks to meet the higher standards of being safe to swim in and take food from over the entire length of the Waikato and Waipa Rivers and catchment. Based on the information currently available, the CSG has concluded full achievement of the Vision and Strategy by 2096 is likely to be costly and difficult. The 80-year timeframe recognises the 'innovation gap' that means full achievement of water quality requires technologies or practices that are not yet available or economically feasible. In addition, the current understanding is that achieving water quality restoration requires a considerable amount of land to be changed from land uses with moderate and high intensity of discharges to land use with lower discharges ~~(e.g. through reforestation).~~

~~Because of the extent of change required to restore and protect water quality in the 80-year timeframe, the CSG has adopted a staged approach. This approach breaks the required improvements into a number of steps, the first of which is to put in place and implement the range of actions in a 10 year period that will be required to achieve 10 percent of the required change between current water quality and the long term water quality in 2096. The staged approach recognises that immediate large scale land use change may be socially disruptive, and there is considerable effort and cost for resource users, industry and Waikato Regional Council to set up the change process in the first stage. New implementation processes, expertise and engagement are needed to support the first stage. The staged approach also allows time for the innovation in technology and practices that will need to be developed to meet the targets^ and limits^ in subsequent regional plans to be developed.~~

~~Because of the extent of change required to meet the 80-year limits^, achieving even the first step towards the long-term freshwater objectives in this Plan is an ambitious target. This means the effects of actions and changes on the land may not be seen as water quality improvements in the water bodies in the short term. This is partly due to the time required for the concentration of contaminants in the water to reduce, following mitigation actions being put in place, and specifically, the time it takes for nitrogen to move through the soil profile to groundwater, and then to surface water. This means that the effect of actions put in place to reduce nitrogen now may not be seen in the water for some time (the length of time lag varies across the catchment). It also means there is a nitrogen 'load to come' from historic land use that is yet to be seen in the water.~~

Plan change 1 therefore adopts a targeted and risked based approach to managing land and water resources which is focussed on sub catchments and which ensures that:

i. water quality is managed to ensure that:

   a. water quality is maintained in those rivers and lakes where the existing water quality is at a level sufficient to support the Values in Section 3.11.1 Objective 1A;

   b. 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 Section 3.11.1 Objective 1A, so that the values are supported by 2097;

   c. accelerated eutrophication and sedimentation of lakes in the catchment is prevented.

The approach to reducing contaminant losses from pastoral farm land implemented by Chapter 3.11 requires:

- stock exclusion from water bodies as a priority mitigation action
- Farm Environment Plans (including those for commercial vegetable producers) that ensure industry-specific good management practice, and identify additional mitigation actions to reduce diffuse discharges by specified dates, which can then be monitored
- ~~a property scale nitrogen reference point to be established by modelling current nutrient losses from each property, with no property being allowed to exceed its reference point in the future and higher dischargers being required to reduce their nutrient losses~~
- an accreditation system to be set up for people who will assist farmers to prepare their Farm Environment Plan, and to certify agricultural industry schemes
- Waikato Regional Council to incentivise, enable, and support, sub-catchment approaches to sustainable land and water management, and adoption of edge of field mitigation where required. Regulatory, non-regulatory, and financial instruments are provided to enable and support communities working together in their watershed (sub-catchments) to address ~~develop approaches outside the rule framework that~~ both point source and diffuse losses of contaminants to water, ~~allow contaminant loss risk factors to be assessed at a sub-catchment level~~, and implement mitigations that look beyond individual farm boundaries to identify the most cost-effective and influential solutions.

~~There are a number of existing provisions, including rules, in the Waikato Regional Plan that will continue to apply for point~~

source discharges.

Municipal and industrial point source dischargers will also be required to revise their discharges in light of the Vision and Strategy and the water quality objectives, and sub-catchment limits^ and targets^ that have been set. This will happen as the current consent terms expire.

There are a range of existing provisions in this Plan that deal with activities that relate to forestry. Forestry activities will continue to be managed by these existing provisions, with the addition of requirements around preparing harvest plans and notifying Waikato Regional Council of harvest activities.

In the short term, land use change from tree cover to animal grazing, or any livestock grazing other the dairy or arable cropping to dairy, or any land use to commercial vegetable production, will be constrained. Provision has been made for some flexibility of land use for Māori land that has not been able to develop due to historic and legal impediments. As these impediments have had an impact on the relationship between tangata whenua and their ancestral lands, with associated cultural and economic effects, Chapter 3.11 seeks to recognise and provide for these relationships. These constraints on land use change are interim, until a future plan change introduces a second stage, where further reductions in discharges of sediment, nutrients and microbial pathogens from point sources and activity on the land will be required. This second stage will focus on land suitability and how land use impacts on water quality, based on the type of land and the sensitivity of the receiving water. Methods in Chapter 3.11 include the research and information to be developed to support this.

Reviewing progress toward achieving the Vision and Strategy

The overall intent of Chapter 3.11 is to require resource users to make a start on reducing discharges of contaminants as the first stage of achieving the Vision and Strategy, with on-farm actions carried out and point source discharges reviewed as existing resource consents come up for renewal. The staged approach gives people and communities time to adapt, while being clear that further reductions will be required by subsequent regional plans.

The Vision and Strategy contained in each of the three River Acts is required to be reviewed periodically by the Waikato River Authority, which may make changes to insert limits and methods.

The Resource Management Act requires that regional councils commence reviews of their regional plans 10 years after those plans are operative. When this is done in the future, further changes to reduce diffuse and point source discharges will need to follow the initial preparatory stage embodied in Chapter 3.11 of this Plan.

During the life of this Plan, Waikato Regional Council will track the progress of actions undertaken on the land towards achieving the Vision and Strategy. In addition, research and information collation will be used when this Plan is reviewed, to inform any future property-level allocation of contaminant discharges.

3.11.1 Values and uses for the Waikato and Waipa Rivers/Ngā Uara me ngā Whakamahinga o ngā Awa o Waikato me Waipā

~~The National Policy Statement – Freshwater Management Policy CA2 requires certain steps to be taken in the process of setting limits^. These include establishing the values^ that are relevant in a FMU^, identifying the attributes^ that correspond to those values^, and setting objectives based on desired attribute states^. This section describes values and uses for the Waikato and Waipa Rivers, to provide background to the objectives and limits^ in later sections.~~

This section describes the values and uses for the Waikato and Waipā Rivers. The values and uses reflect the Vision and Strategy for the Waikato River. The values and uses set out below apply to all FMU's unless explicitly stated, and provide

Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato[1]

"Our vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come."[2]

The values below have been prepared and are supported by the Collaborative Stakeholder Group.

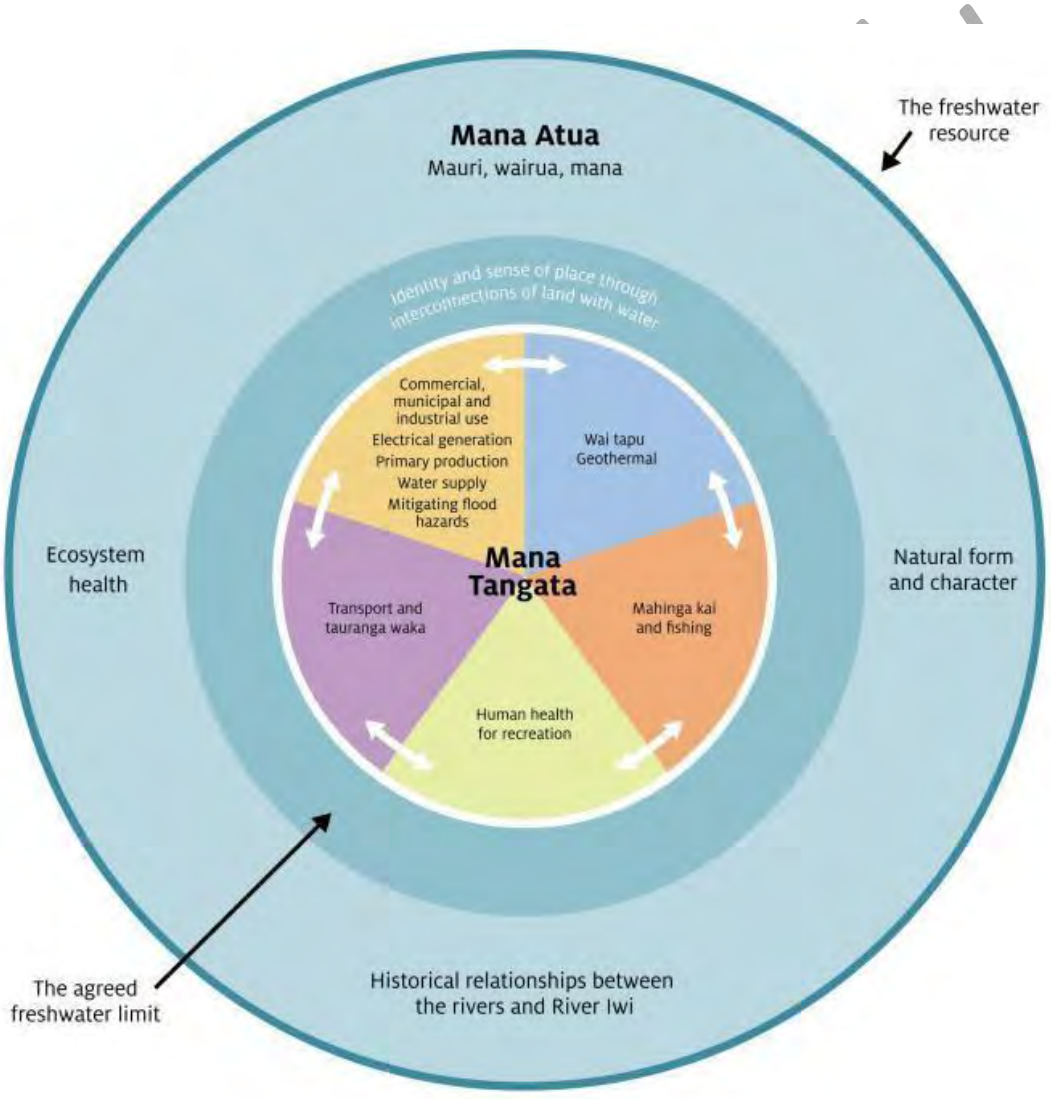
[1] *The Nga Wai o Maniapoto (Waipa River) Act 2012 extended Te Ture Whaimana o te Awa o Waikato to also cover the Waipa River and its catchment*

[2] *The Vision and Strategy is intended by Parliament to be the primary direction setting document for the Waikato River and activities within its catchment affecting the Waikato River. Values and uses are intrinsic to, and embedded in the Vision and Strategy.*

Te Mana o te Wai: Mana Atua, Mana Tangata

Values can be thought of in terms of Mana Atua and Mana Tangata, which represent Te Mana o te Wai[3]. Mana Atua represents the intrinsic values of water including the mauri (the principle of life force), wairua (the principle of spiritual dimension) and inherent mana (the principle of prestige, authority) of the water and its ecosystems in their natural state. Mana Tangata refers to values of water arising from its use by people for economic, social, spiritual and cultural purposes. Mana Atua and Mana Tangata values encompass past, present and future.

A strong sense of identity and connection with land and water (hononga ki te wai, hononga ki te whenua) is apparent through the Vision and Strategy and the many values associated with the rivers. This is represented in the figure below as a unifying value that provides an interface between the Mana Atua and Mana Tangata values.



Note: New diagram from Variation 1 to be inserted.

[3] *The National Policy Statement for Freshwater Management 2014 states that the aggregation of a range of community and tangata whenua values, and the ability of fresh water to provide for them over time, recognises the national significance of fresh water and Te Mana o te Wai.*

Hononga ki te wai, hononga ki te whenua - Identity and sense of place through the interconnections of land with water

- The rivers contribute to a sense of community and sustaining community wellbeing.
- The rivers are an important part of whānau/family life, holding nostalgic feelings and memories and having deep cultural and historical significance.
- For River Iwi and other iwi, respect for the rivers, wetlands and springs lies at the heart of the spiritual and physical wellbeing of iwi and their tribal identity and culture. The river, wetlands and springs are ~~is~~ not separate from the people but part of the people, "Ko au te awa, ko te awa ko au" (I am the river and the river is me).
- Whanaungatanga is at the heart of iwi relationships with rivers, wetlands and springs. Te taura tāngata is the cord of kinship that binds iwi to rivers, wetlands and springs. It is a braid that is tightly woven, tying in all its strands. It is unbroken and infinite, forming the base for kaitiakitanga and the intergenerational role that iwi have as kaitiaki.
- The rivers are a shared responsibility, needing collective stewardship: kaitiakitanga – working together to restore the rivers. There is also an important intergenerational equity concept within kaitiakitanga.
- Mahitahi (collaborative work) encourages us all to work together to achieve common goals.

3.11.1.1 Mana Atua – Intrinsic values

~~**Intrinsic values - Ancestry and History**~~

~~Ko te whakapapa o ngā iwi ki ōna awa tūpuna~~ Ko ngā hononga tūpuna me ngā hononga o mua i waenga i ngā iwi o te awa me ētehi atu iwi me ngā awa, ngā repo me ngā puna / Ancestral and Historical ~~relationships~~ connections between the rivers, wetlands, springs and River Iwi and other iwi

Ko ngā kōrero tūpuna me ngā Kōrero o Mua~~o neherā~~ / Ancestry and History

~~Each~~ River Iwi and other iwi have ~~has~~ their own unique and intergenerational relationship with the rivers, wetlands and springs.	▪ ~~The~~ Rrivers, wetlands and springs have always been seen as taonga (treasures) to all River Iwi and other iwi. ▪ ~~The~~ Rrivers, wetlands and springs have always given River Iwi and other iwi a strong sense of identity and connection with the land and water. ▪ Rivers, wetlands and springs were used holistically; River Iwi and other iwi understood the functional relationships with and between all parts of the rivers, wetlands and springs, spiritually and physically as kaitiaki. ▪ Tribal taniwha and tupua dwell in the rivers which are also the location of continued spiritual and cultural traditions and practices maintained over the many centuries. ▪ Iwi tupuna inhabited a rohe that teemed with life in the rivers, wetlands and springs. These resources were subject to access and use rights as an essential part of kaitiakitanga. ▪ Iwi strive to maintain and restore these relationships despite the modification and destruction that has occurred through different types of development ~~along~~ affecting the rivers, wetlands and springs.

~~**Intrinsic values - Ecosystem health**~~

Ko te hauora me te mauri o te wai / The health and mauri of water

Ecosystem health

The Waikato and Waipa catchments support resilient freshwater ecosystems and healthy freshwater populations of indigenous plants and animals.	▪ Clean fresh water restores and protects aquatic native vegetation to provide habitat and food for native aquatic species and for human activities or needs, including swimming and drinking. ▪ Clean fresh water restores and protects macroinvertebrate communities for their intrinsic value and as a food source for native fish, native birds and introduced game species. ▪ Clean fresh water supports native freshwater fish species.

	▪ Wetlands and floodplains provide water purification, refuge, feeding and breeding habitat for aquatic species, habitat for water fowl and other ecosystem services such as flood attenuation. ▪ Fresh water contributes to unique habitats including peat lakes, shallow riverine lakes and karst formations which all support unique biodiversity. ▪ Rivers and adjacent riparian margins have value as ecological corridors.

~~Intrinsic values - Natural form and character~~

Ko te hauora me te mauri o te taiao / The health and mauri of the environment

Natural form and character

Retain the integrity of ~~the~~ lakes, rivers and wetlands within the landscape and its aesthetic features and natural qualities for people to enjoy.	▪ ~~The~~ Lakes, rivers and wetlands have amenity and naturalness values, including native vegetation, undeveloped stretches, and significant sites. ▪ People are able to enjoy the natural environment; it contributes to their health and wellbeing. ▪ The rivers are an ecological and cultural corridor. ▪ The lakes, rivers and wetlands as a whole living entity.

3.11.1.2 Mana Tangata – Use values

~~Use values - Wai tapu~~

Ko ngā wai tapu me ngā wai kino / Sacred and harmful waters

Area of water body set aside for spiritual activities that support spiritual, cultural and physical wellbeing or have properties that require additional caution or care.	▪ ~~The~~ Lakes, rivers and wetlands are a place for sacred rituals, wairua, healing, spiritual nurturing and cleansing. ▪ ~~The~~ Lakes, rivers and wetlands provide for cultural and heritage practices and cultural wellbeing, particularly at significant sites. ▪ ~~The~~ Lakes, rivers and wetlands have different states of wai tapu and wai kino that are adhered to and respected.

~~Use values – Geothermal~~

Ko ngā Ngāwhā / Geothermal

A valued resource that is naturally gifted to sustain certain activities (meeting spiritual and physical needs).	▪ Geothermal areas and their various resources were prized by tūpuna (ancestors) for their many uses and are still valued and used today. ▪ Geothermal areas of the river have natural form and character, and unique flora found only in the geothermal environment. ▪ Geothermal areas are a special microclimate.

~~Use values - Mahinga kai~~

Ko ngā wāhi mahinga kai / Food gathering, places of food

Mahinga kai

The ability to access the Waikato and Waipa Rivers, lakes, and wetlands and their tributaries to gather sufficient	▪ ~~The~~ Lakes, rivers and wetlands provide for freshwater native species, native vegetation, and habitat for native animals. ▪ ~~The~~ Lakes, rivers and wetlands provide for freshwater game and introduced kai species.

quantities of kai (food) that is safe to eat and meets the social and spiritual needs of their stakeholders.	▪ ~~The~~ Lakes, rivers and wetlands provide for cultural wellbeing, knowledge transfer, intergenerational harvest, obligations of manaakitanga (to give hospitality to, respect, generosity and care for others) and cultural opportunities, particularly at significant sites. ▪ The rivers should be safe to take food from, both fisheries and kai. ▪ ~~The~~ Lakes, rivers and wetlands support aquatic life, healthy biodiversity, ecosystem services, flora and fauna and biodiversity benefits for all. ▪ The rivers are a corridor. ▪ ~~The~~ Lakes, rivers and wetlands provide resources available for use which could be managed in a sustainable way. ▪ ~~The rivers provide for recreation needs and for social wellbeing.~~

~~**Use values - Human health for recreation**~~

Ko te hauora me te mauri o ngā tāngata / The health and mauri of the people

~~The~~ Lakes and rivers are a place to swim and undertake recreation activities in an environment that poses minimal risk to health.	▪ ~~The~~ Lakes and rivers provide for recreational use, social needs and social wellbeing, are widely used by the community, and are a place to relax, play, exercise and have an active lifestyle. ▪ An important value for the lakes and rivers is cleanliness; the lakes and rivers should be safe for people to swim in. ▪ The lakes and rivers provide resources available for use which could be managed in a sustainable way.

~~**Use values - Transport and tauranga waka**~~

He urungi / Navigation

~~Transport and tauranga waka~~

All communities can use ~~the~~ lakes and rivers to pilot their vehicles and waka and navigate to their destinations.	▪ ~~The~~ Lakes and rivers provide for recreational use (navigation), and sporting opportunities. ▪ ~~The~~ Lakes and rivers are a corridor, mode of transport and mode of communication. ▪ ~~The~~ Lakes and rivers provide for culture and heritage, cultural wellbeing, and social wellbeing, particularly at significant sites.

~~**Use values - Primary production**~~

Ko ngā mahi māra me ngā mahi ahu matua / Cultivation and primary production

The rivers support regionally and nationally significant primary production in the catchment (agricultural, horticultural, forestry). These industries contribute to the economic, social and cultural wellbeing of people and communities, and are the major component of wealth creation within the region. These industries and associated primary production also support other industries and	▪ The rivers support a wide variety of primary production in the catchment, including dairy, meat, wool, horticulture and forestry. ▪ Due to the economies of scale of these industries, other service sectors, such as agritech, aviation and manufacturing, are able to operate. ▪ These industries combined contribute significantly to regional and national GDP, exports, food production and employment. ▪ The rivers and the surrounding land offer unique opportunities for many communities and industries to operate, contributing to the lifestyle and sense of community, pride and culture in rural and urban Waikato.

communities within rural and urban settings.	

~~**Water supply**~~

Ko ngā hapori wai Māori / Municipal and domestic water supply

Water supply

The rivers provide for community water supply, municipal supply and, drinkable water supply ~~and health~~.	▪ The catchments' surface and subsurface water is of a quality that can be effectively treated to meet appropriate health standards for both potable and non-potable uses.

~~**Use values - Commerical, municipal and industrial use**~~

Ko ngā āu putea / Economic or commercial development

The rivers, lakes, and wetlands provide economic opportunities to people, businesses and industries.	Fresh water is used for industrial and municipal processes, which rely on the assimilative capacity for discharges to surface water bodies. In addition: ▪ ~~The~~ Lakes, rivers and wetlands provide for economic wellbeing, financial and economic contribution, individual businesses and the community and the vibrancy of small towns. They are working lakes, rivers and wetlands; they create wealth. ▪ Those industries are important to the monetary economy of Waikato region, enabling a positive brand to promote to overseas markets. ▪ ~~The~~ Lakes, rivers and wetlands provide for domestic and international tourism. Promotion of a clean, green image attracts international and domestic visitors. ▪ ~~The~~ Lakes, rivers and wetlands provide assimilative capacity for wastewater disposal, flood and stormwater, and ecosystem services through community schemes or on site disposal.

~~**Use values - Electricty generation**~~

The river provides for reliable, renewable hydro and geothermal energy sources and thermal generation, securing national self-reliance and resilience. New Zealand's social and economic wellbeing are dependent on a secure, cost-effective electricity supply system. Renewable energy contributes to our international competitive advantage. Electricity also contributes to the health and safety of people and communities.	▪ Waikato hydro scheme extends over 186km, comprising Lake Taupō storage, dams, lakes, and power stations. Tongariro Power scheme adds 20 per cent to natural inflows to Lake Taupō. ▪ Huntly Power Station's role in the New Zealand electricity system is pivotal, particularly when weather dependent renewable generation is not available. Fresh water is used for cooling and process water. ▪ Geothermal power stations located on multiple geothermal systems use fresh water for cooling, process water and drilling.

~~**Use values - Mitigating flood hazards**~~

Mitigating flood hazards

Flood management systems protect land used and inhabited by people and livestock.	▪ River engineering, including stopbanks and diversions, protect land and infrastructure from damage by flooding.

3.11.2 Objectives and Freshwater Objectives/Ngā Whāinga

~~**Objective 1: Long-term restoration and protection of water quality for each sub-catchment and Freshwater Management Unit/Te Whāinga 1: Te whakaoranga tauroa me te tiakanga tauroa o te kounga wai ki ia riu kōawaawa me te Wae Whakahaere i te Wai Māori**~~

~~By 2096 at the latest, a reduction in the discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water results in achievement of the restoration and protection of the Waikato and Waipā Rivers, such that of the 80-year water quality attribute targets states in Table 3.11-1 are met.~~

Objective 1 Water Management Values

Surface water bodies are managed in a manner that recognises and provides for the Mana Atua and Mana Tangata Values set out in Section 3.11.1.

Objective 1B Water Quality

Water quality is managed to ensure that:

a) water quality is protected in those surface waterbodies where the existing water quality is at a level sufficient to support the Values in Section 3.11.1 and Objective 1A; and

b) water quality is restored in those surface waterbodies where the existing water quality is not at a level sufficient to support the Values in Section 3.11.1, so that the Values are supported by 2097.

Objective 2: ~~:~~ Social, economic and cultural wellbeing is maintained ~~in the long term/~~Te Whāinga 2: Ka whakaūngia te oranga ā-pāpori, ā-ōhanga, ā-ahurea hoki i ngā tauroa.

Waikato and Waipā communities and their economic and social wellbeing, vibrancy and resilience, are provided for while protecting and, where degraded, restoring the health of the Waikato and Waipā River Catchments.

~~Waikato and Waipa communities and their economy benefit from the restoration and protection of water quality in the Waikato and Waipā River catchments, which enables the people and communities to continue to provide for their social, economic and cultural wellbeing.~~

~~**Objective 3: Short-term improvements in water quality in the first stage of restoration and protection of water quality for each sub-catchment and Freshwater Management Unit/Te Whāinga 3: Ngā whakapainga taupoto o te kounga wai i te wāhanga tuatahi o te whakaoranga me te tiakanga o te kounga wai i ia riu kōawāwa me te Wae Whakahaere Wai Māori**~~

~~Actions put in place and implemented by 2026 to reduce diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens, are sufficient to achieve the short-term water quality attribute states in Table 3.11-1, ten percent of the required change between current water quality and the 80-year water quality attribute targets in Table 3.11-1. A ten percent change towards the long-term water quality improvements is indicated by the short-term water quality attribute targets in Table 3.11-1.~~

~~**Objective 4: People and community resilience/Te Whāinga 4: Te manawa-piharau o te tangata me te hapori**~~

~~A staged approach to change enables people and communities to undertake adaptive management to continue to provide for their social, economic and cultural wellbeing in the short term while:~~

~~a. considering the values and uses when taking action to achieve the attribute^ targets^ for the Waikato and Waipa Rivers in Table 3.11-1; and~~

~~b. recognising that further contaminant reductions will be required by subsequent regional plans and signalling anticipated future management approaches that will be needed to meet Objective 1.~~

~~OR~~

Objective 4: People and community resilience/Te Whāinga 4: Te manawa piharau o te tangata me te hapori, and the achievement of the Vision and Strategy for the Waikato River.

Communities are enabled to work together to sustainably manage land and water resources within sub catchments, in an adaptive manner which:

a) recognises and provides for the Values for freshwater identified in Section 3.11.1;
b) protects, and where degraded restores, water quality; and
c) protects and where degraded restores biodiversity

~~A staged approach to reducing contaminant losses change enables people and communities to undertake adaptive management to continue to provide for their social, economic and cultural wellbeing in the short term while:~~
~~a. considering the values and uses when taking action to achieve the attribute^ targets^ states for the Waikato and Waipa Rivers in Table 3.11-1; and~~
~~b. recognising that further contaminant reductions will be required by subsequent regional plans and signalling anticipated future management approaches that will be needed in order to meet Objective 1.~~

~~Objective 5: Mana Tangata – protecting and restoring tangata whenua values/Te Whāinga 5: Te Mana Tangata – te tiaki me te whakaora i ngā uara o te tangata whenua~~

Tangata whenua values are integrated into the co-management of the rivers and other water bodies within the catchment such that:

a. tangata whenua have the ability to:
   i. manage their own lands and resources, by exercising mana whakahaere, for the benefit of their people; and
   ii. actively sustain a relationship with ancestral land and with the rivers and other water bodies in the catchment; and
b. new impediments to the flexibility of the use of tangata whenua ancestral lands are minimised; and
c. improvement in the rivers' water quality and the exercise of kaitiakitanga increase the spiritual and physical wellbeing of iwi and their tribal and cultural identity.

~~Objective 6: Whangamarino Wetland/Te Whāinga 6: Ngā Repo o Whangamarino~~

~~a. Nitrogen, phosphorus, sediment and microbial pathogen loads in the catchment of Whangamarino Wetland are reduced in the short term, to make progress towards the long-term restoration of Whangamarino Wetland; and~~
~~b. The management of contaminant loads entering Whangamarino Wetland is consistent with the achievement of the water quality attribute^targets^ in Table 3.11-1.~~

OR

~~Objective 6: Whangamarino Wetland/Te Whāinga 6: Ngā Repo o Whangamarino~~

a. Nitrogen, phosphorus, sediment and microbial pathogen loads in the catchment of Whangamarino Wetland are reduced in the short term, to make progress towards the long-term restoration of Whangamarino Wetland; and
b. The management of contaminant loads entering Whangamarino Wetland is consistent with the achievement of the water quality Freshwater Objectives ~~attribute^targets^~~ in Table 3.11-1.

~~Principal Reasons for Adopting Objectives 1-6/Ngā Take Matua me Whai ngā Whāinga 1 ki te 6~~

~~Reasons for adopting Objective 1~~

~~**Objective 1** sets long term limits^ for water quality consistent with the Vision and Strategy. Objective 1 sets aspirational 80-year water quality targets^, which result in improvements in water quality from the current state monitored in 2010-2014. The water quality attributes^ listed in Table 3.11-1 that will be achieved by 2096 will be used to characterise the water quality of the different FMUs when the effectiveness of the objective is assessed. Objective 1 sets the overall context for what is to be achieved in terms of water quality improvements. There is not any hierarchy of Objectives 1 to 6~~

Reasons for adopting Objective 2

Objective 2 sets the long term outcome for people and communities, recognising that restoration and protection of water quality will continue to support communities and the economy. The full achievement of the Table 11-1 2096 water quality attribute^ targets^ may require a potentially significant departure from how businesses and communities currently function, and it is important to minimise social disruption during this transition.

Reasons for adopting Objective 3

Objective 3 sets short term goals for a 10-year period, to show the first step toward full achievement of water quality consistent with the Vision and Strategy.

The effort required to make the first step may not be fully reflected in water quality improvements that are measureable in the water in 10 years. For this reason, the achievement of the objective will rely on measurement and monitoring of actions taken on the land to reduce pressures on water quality.

Point source discharges are currently managed through existing resource consents, and further action required to improve the quality of these discharges will occur on a case-by-case basis at the time of consent renewal, guided by the targets and limits set in Objective 1.

Reasons for adopting Objective 4

Objective 4 provides for a staged approach to long-term achievement of the Vision and Strategy. It acknowledges that in order to maintain the social, cultural and economic wellbeing of communities during the 80-year journey, the first stage (the short term 10-year period) must ensure that overall costs to people can be sustained.

In the future, a property-level allocation of contaminant discharges may be required. Chapter 3.11 sets out the framework for collecting the required information so that the most appropriate approach can be identified. Land use type or intensity at July 2016 will not be the basis for any future allocation of property-level contaminant discharges. Therefore, consideration is needed of how to manage impacts in the transition.

Objective 4 seeks to minimise social disruption in the short term, while encouraging preparation for possible future requirements.

Reasons for adopting Objective 5

Objective 5 seeks to ensure that this Plan recognises and provides for the relationship of tangata whenua with ancestral lands, by ensuring the other provisions of Chapter 3.11 do not provide a further impediment to tangata whenua making optimal use of their land. Historic impediments included customary tenure in the nineteenth century, public works, rating law, Te Ture Whenua Māori Act, and confiscation. Some impediments or their effects continue currently, including issues of governance, fragmentation and compliance with central and local government regulations such as regional and district plans, or the emissions trading scheme. Land relevant to this objective is land returned through Treaty of Waitangi settlement, and land under Māori title that has multiple owners.

Reasons for adopting Objective 6

Objective 6 seeks to recognise the significant value of Whangamarino Wetland, a Ramsar site of international importance, and the complexity of this wetland system. It seeks to recognise that the bog ecosystems (which are particularly sensitive to discharges of contaminants) need protection over time. The effort required to restore Whangamarino Wetland over 80 years is considerable and as a minimum needs to halt and begin to reverse the decline in water quality in the first 10 years. This objective describes how wetland restoration needs to be supported by restoration of the Lower Waikato Freshwater Management Unit sub-catchments that flow into Whangamarino Wetland.

Policy 14: Lakes Freshwater Management Units/Te Kaupapa Here 14: Ngā Wae Whakahaere Wai Māori i ngā Roto

Restore and protect lakes by 2096 through the implementation of a tailored lake-by-lake approach, guided by Lake Catchment Plans prepared over the next 10 years, which will include collecting and using data and information to support improving the management of land use activities in the lakes Freshwater Management Units^.