In the matter of: Clauses 6 and 8 of Schedule 1 – Resource Management Act 1991 – Submissions on publicly notified plan change and variation – Proposed Plan Change 1 and Variation 1 to Waikato Regional Plan – Waikato and Waipa River Catchments

And: **Wairakei Pastoral Ltd**

Submitter

And: **Waikato Regional Council**

Local Authority

LEGAL SUBMISSIONS FOR WAIRAKEI PASTORAL LTD

BLOCK 1 HEARING TOPICS

Dated: 5 March 2019

Counsel: Dr RJ Somerville QC / Dr T Daya-Winterbottom

Solicitors: Harmos Horton Lusk, Auckland (Mr G Horton)

SUMMARY

1 Generally, WPL supports the broad objectives in PC1 to maintain and improve freshwater quality, but considers that PC1 requires amendment (as described in the WPL submissions) to ensure that PC1 will in practice give effect to these objectives. An overview of the WPL submissions is provided in Appendix 1 **attached** to these legal submissions. Key aspects of the Block 1 decisions requested by WPL are summarised below.

Statutory framework

2 The twin engines that will drive PC1 are Table 3.11-1 that sets the freshwater objectives to be achieved by 2026 (addressed in Block 1), and Schedule 1 that sets out the requirements for FEPs (to be addressed in Block 3) that will put in place the actions that need to be implemented to achieve the freshwater objectives.

3 The functions of WRC include controlling the discharge of contaminants into the environment, and controlling land use for the purpose of maintaining and enhancing freshwater quality. PC1 (as notified) includes hybrid rules that address these two functions. There is nothing in the RMA to preclude this approach.

4 Following *King Salmon* sustainable management will (in the PC1 context) be defined by the NPS-FM and the Vision and Strategy. There is no inconsistency between the two statutory documents, they both work together in harmony to prevent further degradation of freshwater quality and to secure improvement where necessary.

5 In particular, the objectives in PC1 must be the most appropriate way to achieve sustainable management. Put simply, they must be suitable for this purpose.

6 Generally, water quality is required to be “maintained” under the NPS-FM where water quality is generally high (e.g. in the Upper Waikato River FMU). In other cases, water quality will need to be “improved” in accordance with the NPS-FM as amended.

Science underpinning PC1

7 The objectives in PC1 are premised on the groundwater N “load to come”. But this assumption is conceptually flawed because it is not consistent with redox chemistry (where oxidation and reduction are considered together as complementary processes). Put simply, as groundwater ages its chemical composition will change and as a result N will be attenuated through denitrification. Accordingly, it is unlikely (in terms of probability) that old groundwater discharges will have high N loads.

8 In contrast, young groundwater discharges are typically directly connected to surface water through run-off. Accordingly, PC1 should therefore be focused on managing the N load attached to surface run-off and source areas of young groundwater. Consequently, managing discharges during the short-term (2016-2026) is critical to ensure that water quality is maintained or improved (as necessary) to meet freshwater objectives.

9 The consequence of these findings is that actions will need to be put in place sufficiently early so that they can be implemented and N discharges can be managed before 2026 so that the short-term freshwater objectives in PC1 are actually met.

10 The long-term (2026-2096) freshwater objectives will however remain important, but they will in practice be less critical than the short-term freshwater objectives.

Key aspects of the Block 1 decisions requested by WPL

11 **Objective 1** is amended to emphasize that water quality will need either to be "maintained" or "improved" (as necessary) and to include a reference to "sub-catchments". Table 3.11-1 is directly relevant and sets the numeric freshwater objectives to be met by 2096. Dr Neale recommends that Table 3.11-1 should also include targets that should apply when freshwater objectives are not met, and limits that apply when they are met. Expert conferencing should resolve how targets could be included in the framework of Table 3.11-1.

12 **Objective 2** is also amended to emphasise that water quality will need either to be "maintained" or "improved" (as necessary) and to include a reference to "sub-catchments".

13 **Objective 3** is amended to emphasise that water quality will need either to be "maintained" or "improved" (as necessary) and to include a reference to "sub-catchments". Table 3.11-1 is directly relevant and sets the numeric freshwater objectives to be met by 2026. However, Objective 3 is unlikely to be achieved in all sub-catchments unless Rule 3.11.5.4 (as notified) is amended. Similarly, Rule 3.11.5.6 should (as a consequence) be amended to take account of the temporal and spatial variability of groundwater dynamics. These rules will be addressed in Block 2.

14 **Objective 4** is amended to emphasise the role played by adaptive management (via FEPs and sub-catchment management) in meeting the short-term and long-term freshwater objectives in Table 3.11-1. Adaptive management will (in practice) be reinforced by monitoring and regular FEP updates. This approach gives effect to s 32(4) of the RMA and the Vision and Strategy that (together)

embed the precautionary principle into the statutory framework that PC1 must give effect to.

15 **Objective 5** is amended to clarify whether this objective should apply to Treaty settlement land. This certainly appears to be the case from PC1 as notified and the Officers' reasoning in the Section 42A Report. Amending this objective to include Treaty settlement land would be consistent with s 7(a) and s 8 of the RMA, and the Treaty settlement legislation that applies to the five River iwi and the river catchments.

16 **Objective 6** is amended to more closely reflect the long-term and short-term freshwater objectives referenced in Objectives 1 and 3 and Table 3.11-1 in relation to the wetland. Retaining this objective is also an important way of reflecting the requirements of the Ramsar Convention in the statutory planning framework for the region as referenced in the *Guide to the National Policy Statement for Freshwater Management 2014* (as amended 2017).

17 **Table 3.11-1** (as notified) is not fit for purpose for the reasons explained by Dr Neale (for WPL) and other witnesses. WPL therefore welcomes the directions made by the Commissioners for expert witness conferencing, given the vital role of Table 3.11-1 as one of the twin engines that will drive the implementation of PC1. In particular, Dr Neale recommends that Table 3.11-1 should be amended to include targets and limits as noted above.

18 Sub-catchment 66 (**Table 3.11-2** and **Map 3.11-2**) is subdivided into Sub-catchments 66A and 66B in conformance with fundamental catchment delineation principles. Boundary lines should therefore follow topographical ridgelines or flow divides. In particular, Sub-catchment 66 is partly lacustrine and riverine in character and this should also inform the catchment subdivision.

19 The **Glossary of Terms** is amended to include a hydrological definition of "springs" to distinguish between ephemeral and perennial springs.

Conclusions

20 Notwithstanding the concerns about the science, the PC1 objectives (as amended by Mr McKay) are now generally suitable for achieving sustainable management, subject to Table 3.11-1 being revised via conferencing as recommended by Dr Neale and other expert witnesses. The changes sought by WPL to the provisions of PC1 are listed in Appendix 1 attached to the planning evidence of Mr McKay showing underlined additions and strike-through deletions to the text by reference to the submissions and further submissions made by WPL.

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WAIRAKEI PASTORAL LTD

Block 1 Hearing Topics

PART A – OVERVIEW AND CONTEXT

A1. INTRODUCTION

1 These legal submissions are made on behalf of Wairakei Pastoral Ltd (**WPL**) regarding the Block 1 Hearing Topics.

2 To assist the Commissioners, these submissions adopt the same format and structure as the Section 42A Report. The same abbreviations are also used where relevant. The statements of evidence and rebuttal filed for WPL by the following witnesses also follow the same approach:

2.1 Mr Ross Green, Director, Wairakei Pastoral Ltd.

2.2 Mr Nicholas Conland, Natural Resources Management, Wairakei Pastoral Ltd.

2.3 Dr Martin Neale, Director, Puhoi Stour – an expert freshwater ecologist.

2.4 Mr Jonathan Williamson, Director, Williamson Water & Land Advisory – an expert hydrologist and hydrogeologist with expertise in data collection and analysis, and modelling.

2.5 Dr Phillip Jordan, Director, Hydrology and Risk Consulting – an expert hydrologist and water resources engineer with experience in water quality modelling.

2.6 Dr Richard Creswell, Senior Principal, Eco Logical Australia – an expert hydrogeologist with expertise in hydrodynamics, geochemistry and isotopes.

2.7 Mr Stuart Ford, Director, AgriBusiness Group – an expert agricultural and resource economist.

2.8 Mr Dwayne McKay, Director, Thornton Environmental – an expert planning and resource management consultant.

3 Their evidence fully addresses the matters raised by WPL and covered by the Block 1 Hearing Topics. A glossary of the terms

used in the WPL submissions and evidence is **attached** as Appendix 2.

Wairakei Pastoral Ltd

4 WPL is a wholly New Zealand owned company and is the freehold owner of the 25,723ha Wairakei Estate (**Estate**) located north of Taupo and shown coloured green on **Figure 2** included in the evidence of Mr Conland.[1] The Estate is located partly in Sub-catchments 66, 72, 73 and 74 (see PC1 Map 3.11-2 as notified). The company is committed to sustainable management, and has a long-term interest in, and inter-generational vision for, the management of the Estate. WPL is also a very environmentally aware and responsible corporate citizen.

5 The Estate's success is due to long-term values, mixed land use and valued partnerships with WPL's like-minded lessees.

6 The mixed land use encompasses a variety of activities, including ovine and bovine dairy farming and dry-stock farming, geothermal energy generation, lucerne cropping, and beef and sheep grazing, carried out by both WPL and its lessees.

7 The management of the Estate seeks to achieve an appropriate balance between commercial and environmental sustainability, including the planned set-aside of up to 5,000ha or 20% of the Estate for ecological and landscape protection, and to safeguard slope stability on erosion prone land. Beyond that, current and ongoing development of the Estate makes a significant and sustained contribution to the local and regional economies, and to social, cultural and community well-being.

8 All riparian and wetland areas have dedicated management plans to enhance and encourage their growth and development. These areas are protected with over 250km of fencing (with a further 200km identified to follow). WPL has permanently retired 750ha of riparian areas with a further 500ha identified for future retirement. The targeted average setback along the Waikato River is 75m, with several areas exceeding 150m.

9 In particular, as part of the commitment to riparian management: stock are excluded from all water bodies within the Estate; riparian margins are progressively planted over time with native species and kept pest and weed free; and variable setbacks between 10m – >50m are achieved from water bodies (depending on topography) in all livestock and pastoral farming areas on the Estate.

[1] Mr Conland, EIC, p9,

10 The WPL management team is based at Broadlands and covers a range of disciplines, including, business and farm planning, estate management and land economy, geographic information systems and cartography, natural resources planning, and soil conservation.

11 WPL has an acute awareness of the environmental challenges and has established and maintained an Estate-wide monitoring programme and employs a dedicated environmental team (as noted above) to ensure the enhancement and development of its existing good management practices.

12 For example, in the development of its environmental management plans and monitoring programmes WPL has taken into account the views of hapu and iwi, both at a local and regional level, to ensure that the appropriate cultural issues are addressed and properly provided for. A number of the measures undertaken on the Estate, such as stock exclusion fencing and the establishment of riparian strips along waterways, respond directly to known hapu and iwi sediment control and water quality concerns.

13 These matters are fully addressed in the evidence of Mr Green and Mr Conland.

Wairakei Estate

14 As at 22 October 2016 the Estate was lawfully used for a range of land use activities, namely, farming activities (61%) comprising dairy, dairy support, dairy sheep, and lucerne; planted production forest (34%); retired areas (4.5%) for landscape and riparian protection; and built development (0.5%) including the Ngatamariki geothermal power station operated by Mercury NZ Ltd.

15 Farming activities on the Estate are carried out (primarily) by Landcorp Farming Ltd (**PAMU**), Kiwi Grazing Ltd, and Fiber Fresh Ltd under long-term lease arrangements managed by WPL.

16 Associated diffuse discharges from existing lawful activities carried out on the Estate as at 22 October 2016 have been calculated in accordance with the methodology in Schedule B of PC1, and produce a Nitrogen Reference Point (**NRP**) of 21 kg/N/ha/year or a Total Annual Nitrogen Discharge (**TAND**) of 528 tonnes/year.

17 Such existing farming activities are expressly allowed to continue as permitted activities under Rule 3.11.5.4 in PC1 until 1 January 2026,[2] subject only to complying with permitted activity conditions requiring the registration of the Estate in conformance with Schedule A and the production of a NRP in conformance with Schedule B.

[2] The majority of the Estate (more than 50%) is located within Sub-catchments 66 and 74 that are listed as Priority 3 Sub-catchments in Table 3.11-2 and Map 3.11-2.

18 These matters are fully addressed in the evidence of Mr Conland.[3]

Land use change

19 The future development of the Estate will involve up to 1,800ha (approximately 7% of the whole Estate) of additional land use change from planted production forest to farming activities, beyond existing farming activities lawfully carried out on the Estate as at 22 October 2016. This will complete the pastoral conversion started in mid-2004. WPL anticipates that such modest further land use change can be undertaken in such a way as to ensure that the NRP or TAND derived from existing pre-notification activities (described above) is not exceeded.

20 To date, WPL has applied for consents under Rule 3.11.5.7 in PC1 regarding land use change of up to 1,300ha from planted production forest to farming activities that has occurred on the areas of the Estate leased by PAMU after 22 October 2016. These applications are currently on hold under s 37 of the Resource Management Act 1991 (**RMA**).

21 These matters are fully addressed in the evidence of Mr Conland.[4]

A2. PLAN CHANGE 1

22 Proposed Waikato Regional Plan Change 1 (**PC1**) pertaining to the Waikato and Waipa River Catchments was publicly notified under cl 5 of Schedule 1 of the RMA on 22 October 2016.

23 The amendments made to the RMA by the Resource Legislation Amendment Act 2017 (**RLAA**) do not therefore apply to PC1 because PC1 was notified before 18 April 2017.[5] Accordingly, PC1 "must be determined as if the amendments made by the amendment Act had not been enacted".[6] The same position will also apply to Variation 1 (**Var1**) from its merger into PC1 under cl16B(1) of sch 1 of the RMA.

24 PC1 is designed to give effect to the National Policy Statement for Freshwater Management 2014 (as amended) (**NPS-FM**) and the Vision and Strategy for the Waikato River (**Vision and Strategy**) in the operative Waikato Regional Policy Statement (**WRPS**). In summary, PC1 forms part of an 80-year strategy to restore freshwater quality in the rivers so that they are safe for swimming

[3] Mr Conland, EIC paras 27-70.

[4] Mr Conland, EIC paras 71-72.

[5] Resource Legislation Amendment Act 2017, sch 2; RMA, sch 12, pt 2, cl 13(1).

[6] Resource Legislation Amendment Act 2017, sch 2; RMA, sch 12, pt 2, cl 13(2).

and taking food from by 2096. Specifically, PC1 includes a range of actions that are designed to achieve 10% of the required change in freshwater quality over a 10-year period (2016-2026).[7]

25 In particular, this outcome is to be achieved by a staged approach to regulation (whereby properties and enterprises will be required to apply for resource consent in three tranches in 2022, 2024, and 2026) that will also enable further information to be gathered about freshwater quality and ecosystem health. Key aspects of PC1 include new provisions regarding stock exclusion from water bodies, the preparation of Farm Environment Plans (**FEPs**) to encourage the uptake of Good Management Practice (**GMP**), the calculation of property or enterprise scale NRP to ensure that existing nutrient losses are not exceeded in the future, sub-catchment scale mitigation methods, and constraints on land use change.[8]

26 PC1 inserts a new chapter (Chapter 3.11) into the Waikato Regional Plan (**WRP**) primarily to manage farming activities and commercial vegetable production in order to protect freshwater quality from the adverse effects of diffuse contaminant discharges. Apart from minor consequential amendments to existing operative WRP rules, PC1 does not address contaminant discharges from other activities (e.g. forestry or urban) or point-source discharges.

27 The rules in PC1 have immediate legal effect from public notification (22 October 2016) under s 86B(3)(a) of the RMA because they protect or relate to water. As a result, any person can rely on the permitted activity rules in PC1 to carry on existing farming activities that were lawfully established before 22 October 2016 until such time as resource consent is required under the proposed new rules.

Waikato Regional Plan

28 The operative WRP does not include any land use rules under s 30(1)(c)(iii) of the RMA for the purpose of maintaining and enhancing the quality of water in water bodies. Accordingly, farming activities and land use change (e.g. from planted production forest to farming activities) were generally permitted under s 9(2) of the RMA before PC1 was notified on 22 October 2016.

29 Notwithstanding this general position regarding land use activities, the WRP included some rules in Chapter 3.5 pertaining to farm animal effluent discharges and in Chapter 3.9 pertaining to non-point source discharges that are (inter alia) relevant in the context of pastoral farming - for example, permitted activity Rules 3.5.5.1

[7] Section 42A Report, 4-5, paras 11-14.

[8] Section 42A Report, 5-6, paras 14 and 18.

regarding the discharge of farm animal effluent onto land, 3.5.5.2 regarding the discharge of feed pad and stand-off pad effluent onto land, and 3.9.4.11 regarding fertiliser application onto land.

30 Rules 3.5.5.1 and 3.5.5.2 are subject to conditions that (inter alia) recommend a maximum nitrogen (**N**) loading rate not exceeding 150 kilogram/hectare/year and require compliance with Rule 3.9.4.11 where fertiliser and farm animal effluent has been applied or discharged to the same land within the preceding 12 months. In particular, Rule 3.9.4.11 is subject to a condition that requires (inter alia) the development of a nutrient management plan pertaining to the whole of the relevant property or enterprise. Where these permitted activity conditions are not complied with, discretionary activity resource consent is required under Rule 3.5.5.4.

31 However, these rules are proposed to be changed by the consequential amendments to the WRP in PC1 so that Rules 3.5.5.1, 3.5.5.2, and 3.5.5.4 will now apply only in respect of "point-source" discharges, and diffuse discharges will be regulated solely by the new rules in Chapter 3.11 inserted by PC1.

32 Likewise, Rule 3.9.4.11 in Chapter 3.9 is also amended by the consequential amendments so that the provisions and requirements of any approved FEP prepared in accordance with the rules in Chapter 3.11 of PC1 will prevail where "there is any inconsistency" between the provisions of these two chapters regarding diffuse or non-point discharges from (inter alia) farming activities.

33 The key objectives in the WRP that are relevant in the context of PC1 and managing freshwater quality are summarised in Part A.2.3.4 of the Section 32 Evaluation Report but are not further addressed in the Section 42A Report.[9] These existing objectives include (inter alia) Objective 3.1.2 regarding the management of water bodies, Objective 3.5.2 regarding discharges generally, and Objective 5.2.2 regarding discharges onto or into land in circumstances where they may enter water.

A3. LEGAL AND STATUTORY FRAMEWORK

34 The legal and statutory framework for PC1 set out in the hierarchy of RMA provisions:[10]

[9] Section 32 Evaluation Report, 15.

[10] *Long Bay-Okura Great Park Society v North Shore City Council* EnvC Auckland A78/08, 16 July 2008 at [34]; *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 182 at [1] – [10] and [1] – [14].

Plan Change 1

35 PC1 should be designed to accord with and assist WRC to carry out its RMA functions and achieve the statutory purpose of promoting the sustainable management of natural and physical resources (including water).[11]

36 In preparing PC1, WRC must give effect to any NPS,[12] and must comply with and be in accordance with any regulations (including any NES).[13] In particular, the PC1 rules must not be more lenient than the NES but may (if expressly allowed by the NES or the Vision and Strategy) be more stringent than the NES. The Supreme Court in *Environmental Defence Society Inc v The New Zealand King Salmon Company Ltd* found that the requirement to give effect to any NPS provides a "strong directive" and that it was "implausible" that regard should be had to Part 2 of the RMA "absent any allegation of invalidity, incomplete coverage or uncertainty of meaning".[14] Effectively, the more detailed subsidiary planning instruments (the NPS and the Vision and Strategy) should be regarded as achieving sustainable management unless one of three exceptions applies to the specific case.

37 PC1 must also give effect to the operative WRPS (including the Vision and Strategy),[15] and must not be inconsistent with any other regional plan provisions for the Waikato region.[16] While the policies in the WRPS are not "directly binding upon and enforceable against members of the public" the courts have nevertheless found that RPS policies can be "highly specific" in a way that are (effectively) "rules in the ordinary sense of that term".[17]

38 In particular, the WRPS includes a series of key objectives and policies (summarised in Part A.2.3.3 of the Section 32 Evaluation Report) that are relevant in relation to PC1 and managing freshwater quality.[18] While it is appropriate to apply the WRPS

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[11] RMA,s 63.

[12] RMA, s 67(3); e.g. National Policy Statement for Freshwater Management 2011 amended August 2014 and September 2017.

[13] RMA, s 66; e.g. Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 that came into effect on 20 June 2008.

[14] [2014] 1 NZLR 593 at [80], [85], [86], [88], and [90]-[91].

[15] RMA, s 67(3)(c).

[16] RMA, s 67(4)(b).

[17] *Environmental Defence Society Inc v The New Zealand King Salmon Company Ltd* [2014] 1 NZLR 593 at [112]-[116]; *Auckland Regional Council v North Shore City Council* [1995] 3 NZLR 18 at 30-31.

[18] Section 32 Evaluation Report, 14.

objectives and policies holistically in a "themed" way,[19] it is important to ensure that all relevant provisions are taken into account including both provisions relating to freshwater and provisions relating to other matters, such as regionally significant industry and primary production.[20] Notwithstanding the importance of these key provisions they are not addressed further in the Section 42A Report.

Section 32 evaluation

39 The objectives in PC1 are required to be evaluated under s 32 as to whether (collectively in a holistic way) they are "the most appropriate" way to achieve sustainable management. This duty also includes a requirement to identify any other "reasonably practicable" options for achieving the objectives. There is no requirement that the PC1 objectives should be the "optimum or superior" methods for achieving the RMA statutory purpose, but they are required to be "suitable". For example, in *Rational Transport Society Inc v New Zealand Transport Agency* the High Court found that:[21]

> Section 32 requires a value judgment as to what on balance, is the most appropriate, when measured against the relevant objectives. "Appropriate" means suitable, and there is no need to place any gloss upon that word by incorporating that it be superior.

40 The policies in PC1 should be designed to implement the objectives, and the rules in PC1 should in turn be designed to implement the policies.[22]

41 The policies and rules are required to be evaluated under s 32 by having regard to their efficiency and effectiveness to determine whether (individually) they are the most appropriate method for achieving the PC1 objectives taking into account:

41.1 The benefits and costs of the proposed policies and rules; and

41.2 The risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies or rules (the precautionary principle).

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[19] *Auckland Regional Council v Living Earth Ltd* [2009] NZRMA 22 at [45].

[20] WRPS, Policy 4.4 Regionally significant industry and primary production.

[21] [2012] NZRMA 298 at [45].

[22] RMA, s 67(1)(b) and (c).

42 When assessing the benefits and costs of the proposed policies and rules WRC is required to identify and assess the environmental, economic, social, and cultural effects of promulgating these provisions. In particular, this assessment must address whether the policies and rules will provide for, or reduce, opportunities for economic growth and employment, and where "practicable" the benefits and costs should be quantified - while recognising that it may not be possible to quantify matters in economic or dollar terms in every case.[23] A numeric approach should, however, be applied where possible. Explicit in the assessment of benefits and costs regarding the proposed policies and rules is the requirement to identify any other "reasonably practicable" options for achieving the PC1 objectives.

43 Both WRC and the Commissioners are required to have "particular regard" to the s 32 evaluation when (respectively) notifying PC1 and when making deliberations as part of the final decision-making process.

44 In relation to the rules, WRC must also have regard to the actual or potential effects of activities on the environment that the rules are designed to address.[24]

45 WRC is also required to record how it has allocated any natural resources (e.g. the capacity of water to assimilate the discharge of contaminants) under s 30(1)(fa)(iv) of the RMA, if it has done so via PC1.[25]

46 Jurisdictionally, WRC has a wide discretion to include rules in PC1 for the purpose of managing the discharge of contaminants into water and soil under s 30(1)(f) of the RMA. But its jurisdiction to regulate land use is restricted to (inter alia) managing the quality of freshwater under s 30(1)(c)(ii) of the RMA.

47 Additionally, before it includes a rule in the regional plan that allows the discharge of contaminants into water (either directly or as a result of discharges onto land) as a permitted activity, WRC must be "satisfied" that none of the effects listed in s 70(1)(c)-(g) will arise after reasonable mixing. For example, the Officers question in the Section 42A Report whether the permitted activity framework for Certified Industry Schemes in Rule 3.11.5.3 and Schedule 2 of PC1 will meet the requirements of s 70.[26]

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[23] *Meridian Energy Ltd v Central Otago District Council* [2011] 1 NZLR 482 at [107]; *Geotherm Group Ltd v Waikato Regional Council* NZEnvC Auckland A151/2006, 19 November 2006 at [48].

[24] RMA, s 68(3).

[25] RMA, s 67(4).

[26] Section 42A Report, 26 para 134.

Questions about rules

48 Beyond that, the Commissioners have asked whether the rules in PC1 are land use rules, or discharge rules, or both.[27] The following preliminary observations are made:

48.1 The functions of WRC include controlling the discharge of contaminants into the environment, and controlling land use for the purpose of maintaining and enhancing freshwater quality. PC1 (as notified) includes hybrid rules that address these two functions. There is nothing in the RMA to preclude this approach.

48.2 As a minimum discharge rules are required to give effect to the Vision and Strategy.[28]

48.3 This question was explored by the Environment Court in *Carter Holt Harvey Ltd v Waikato Regional Council*[29] regarding Variation 5. The Court was at that time reluctant to find that diffuse contaminant discharges from farming activities were regulated under s 15(1)(b) of the RMA primarily because the issue had not been satisfactorily addressed in evidence or legal submissions. The Court was therefore reluctant to make a precedent decision. Beyond that, the Court noted (without exploring them) that a hybrid rule could create some administrative difficulties. Ultimately, the Court agreed that it would be appropriate to include a separate discharge rule in what is now Section 3.10 Lake Taupo Catchment of the WRP and directed WRC to amend Variation 5 to include a rule that expressly allowed any associated N discharges from farming activities.[30]

48.4 Subsequent decisions from the Environment Court and the High Court have proceeded on the basis that diffuse contaminant discharges from farming activities are regulated under s 15 of the RMA.[31]

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[27] Minute from the Hearing Panel – regarding: Hearing Panel's questions for the Council during their opening (in response to and in addition to the evidence it has lodged) (19 February 2019), 5.

[28] Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, s 10.

[29] *Carter Holt Harvey Ltd v Waikato Regional Council*, A123/2008.

[30] A123/2008 at [165] – [206].

[31] *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 182; *Horticulture New Zealand v Manawatu-Wanganui Regional Council* [2013] NZHC 2492; *Hawke's Bay and Eastern Fish and Game Councils v Hawke's Bay Regional Council* [2015] NZRMA 131; *Wellington Fish and Game Council v Manawatu-Wanganui Regional Council* [2017] NZEnvC 37.

48.5 Any issues with respect to leased land will likely be resolved by having regard to property law principles regarding (for example) tenants' improvements and waste.[32]

49 This question will be addressed further in relation to the Block 2 Hearing Topics.

Interpreting plan provisions

50 The correct approach for interpreting plan provisions was considered in *Powell v Dunedin City Council*,[33] where the Court of Appeal adopted a purposive approach to interpretation and stated:

> While we accept it is appropriate to seek the plain meaning of a rule from the words themselves, it is not appropriate to undertake that exercise in a vacuum. As this Court made clear in *Rattray*, regard must be had to the immediate context (which in this case would include the objectives and policies and methods …) and, where any obscurity or ambiguity arises, it may be necessary to refer to the other sections of the plan and the objectives and policies in the plan itself. Interpreting a rule by a rigid adherence to the wording of the particular rule itself would not, in our view, be consistent with a judgment of this Court in *Rattray* or with the requirements of the Interpretation Act.

51 Previously, in *Beach Road Preservation Society Inc v Whangarei District Council*,[34] the High Court had found that because rules have the same force and effect as statutory regulations (e.g. s 68(2) of the RMA regarding regional rules) the Interpretation Act 1999 will apply and under s 5(1) their meaning should be ascertained from the text of the plan read in light of their purpose (which in the context of a plan will be the relevant objectives and policies).

Relevance of plan interpretation for PC1

52 Plan interpretation will be important in the context of defining existing freshwater quality and setting freshwater objectives under the NPS-FM (discussed below) that describe the intended environmental outcomes that PC1 is designed to deliver. In cases where there is a need to improve freshwater quality these starting points and end points will also (likely) be critically important.

53 As notified Table 3.11-1 sets freshwater objectives but does not include any information about existing freshwater quality. The

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[32] *Armstrong v Public Trust* [2007] 2 NZLR 859.

[33] [2005] NZRMA 174 at [35].

[34] [2001] NZRMA 176 at [33].

available information about existing freshwater quality is currently only found in the tables included in Appendix 4 of the overview report prepared by the CSG, and repeated in Part D.4.1 Appendix 1 of the Section 32 Report.[35]

54 Under the normal plan interpretation rules developed by the Courts reference to these materials after PC1 becomes operative is unlikely to occur. Accordingly, if the information about existing freshwater quality is important in giving effect to the NPS-FM and the Vision and Strategy then it may be sensible (indeed necessary) to consider including this information in any amended Table 3.11-1. This should therefore be one of the matters for expert conferencing on Table 3.11-1 as directed by the Commissioners on 27 February 2019.[36]

NPS-FM and its 2017 update

55 The NPS-FM is designed to safeguard the life-supporting capacity of freshwater by requiring WRC to set freshwater objectives for water bodies in (inter alia) the Waikato River catchment, and to implement water quality allocation limits to maintain, or (where necessary) improve water quality to levels considered appropriate for the catchment.

56 The NPS-FM came into effect on 1 August 2014 and its 2017 update came into effect on 7 September 2017. It underscores the importance of freshwater from a cultural, environmental, and social context; and in relation to the economic importance of freshwater for energy generation, primary production, and tourism.[37]

57 The NPS-FM includes key objectives and policies that emphasise the cultural importance of freshwater and the critical role played by Maori in RMA decision-making in relation to both policy statements and plans (including PC1), and resource consents.[38] It also has a broad focus on achieving integrated management both across whole catchments[39] and in relation to smaller spatial units focused on all or part of a water body or multiple water bodies (e.g. the sub-catchments defined by PC1). In particular, the primary focus of regional plans under the NPS-FM, regarding freshwater quality, is

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35 Healthy Rivers Plan for Change, *Restoring and protecting our water: Overview of Collaborative Stakeholder Group's Recommendations for Waikato Regional Plan Change No 1 – Waikato and Waipa River catchments* (March 2016), 67-78; Section 32 Evaluation Report, 105-123.

36 Minute from the Hearing Panel regarding Expert Conferencing – Table 3.11-1, 27 February 2019.

37 NPS-FM, Preamble, 4.

38 NPS-FM, Objectives AA1 and D1.

39 NPS-FM, Objective C1.

maintaining or improving overall freshwater quality in Freshwater Management Units (**FMUs**). For example:

57.1 Objective A2 is focused on maintaining or improving overall freshwater quality in FMUs.

57.2 Objective A3 is focused on improving freshwater quality within FMUs so that it is suitable for primary contact, including swimming.

57.3 Policy A1 directs WRC to define FMUs in the Waikato region and establish freshwater objectives[40] and set freshwater quality limits[41] for all FMUs in the region (following the process in Policies CA1 to CA4), and provides the raison d'être for PC1.

57.4 Policy A2 requires WRC to specify targets[42] and implementation methods (including rules) in PC1 regarding contaminants to assist with improving freshwater quality in FMUs where the freshwater objectives are not met.

57.5 Policy CA2 requires WRC to:

(a) Consider how the national values[43] for freshwater in Appendix 1 of the NPS-FM apply within the local circumstances of the Waikato region;[44]

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[40] "**Freshwater objective"** describes an intended environmental outcome in an FMU: NPS-FM, Interpretation.

[41] "**Limit"** is the maximum amount of resource available, which allows a freshwater objective to be met: NPS-FM, Interpretation.

[42] "**Target"** is a limit which must be met at a defined time in the future. This meaning only applies in the context of over-allocation: NPS-FM, Interpretation.

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

a) has been allocated to users beyond a limit; or

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

This applies to both water quantity and quality: NPS-FM, Interpretation (emphasis added).

[43] "**Value"** means:

a) any national value; and

b) includes any value in relation to fresh water, that is not a national value, which a regional council identifies as appropriate for regional or local circumstances (including any use value): NPS-FM, Interpretation.

[44] NPS-FM, Policy CA2(a).

(b) Identify the compulsory and other values for each FMU;[45]

(c) Identify for each of the values the relevant attributes;[46] [47]

(d) Assign attribute states[48] (at or above the minimum) for the compulsory and other national attributes listed in Appendix 2 of the NPS-FM;[49]

(e) Formulate freshwater objectives (preferably in numeric terms) for the attributes.[50]

57.6 Policy CA2(f) also requires WRC to consider the following matters at all relevant points in the PC1 preparation process:

(a) How to improve freshwater quality so that it is suitable for primary contact, including swimming, unless relevant regional targets have already been met;[51]

(b) How to enable communities to provide for their economic well-being;[52]

(c) The current state of the FMU and its anticipated future state on the basis of past and current use, and community understanding of the health and well-being of the FMU;[53]

(d) The spatial scale at which FMUs should be defined;[54]

(e) The limits required to achieve the freshwater objectives;[55]

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45 NPS-FM, Policy CA2(b).

46 "**Attribute"** is a measurable characteristic of fesh water, including physical, chemical and biological properties, which supports particular values: NPS-FM, Interpretation.

47 NPS-FM, Policy CA2(c).

48 "**Attribute state"** is the level to which an attribute is to be managed for those attributes specified in Appendix 2 of the NPS-FM: NPS-FM, Interpretation.

49 NPS-FM, Policy CA2(d).

50 NPS-FM, Policy CA2(e).

51 NPS-FM, Policy CA2(f)(iaa).

52 NPS-FM, Policy CA2(f)(iab).

53 NPS-FM, Policy CA2(f)(i).

54 NPS-FM, Policy CA2(f)(ii).

(f) The choice between values required when formulating freshwater objectives;[56]

(g) The implications for people and communities (including resource users) arising from formulation of the freshwater objectives;[57]

(h) The timeframes required for achieving the freshwater objectives;[58]

(i) Such other matters as may be relevant and reasonably necessary for giving effect to the NPS-FM.[59]

Improving freshwater quality

58 The 2017 updates to the NPS-FM included key amendments to the Preamble; Objectives A2, A3, and A4; and Policies CA2 and CA3; that clarify how the requirements to "maintain" or "improve" freshwater quality should be interpreted. For example:

58.1 The Preamble states:

> The national policy statement requires freshwater quality within a freshwater management unit to be **maintained** at its current level (where community values are currently supported) or **improved** (where community values are not currently supported). For the human health value, water quality in freshwater management units must be **improved** unless regional targets have been achieved or naturally occurring processes mean further improvement is not possible. This national policy statement allows some variability in terms of freshwater quality, as long as the overall freshwater quality is **maintained** within a freshwater management unit. (Emphasis added)[60]

58.2 More importantly, the updated Preamble also provides that it may be used to assist with interpretation of the NPS-FM.[61]

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55 NPS-FM, Policy CA2(f)(iii).

56 NPS-FM, Policy CA2(f)(iv).

57 NPS-FM, Policy CA2(f)(v).

58 NPS-FM, Policy CA2(f)(vi).

59 NPS-FM, Policy CA2(f)(vii).

60 NPS-FM, 5.

61 NPS-FM, 5.

58.3 Objective A2 was updated so that the requirement to maintain or improve overall freshwater quality now applies in relation to the spatially smaller FMUs rather than across the whole region.

58.4 The updated NPS-FM also now includes Policy CA2(e)(iia) which provides that where freshwater quality objectives seek to "maintain overall water quality in accordance with Objective A2", that such freshwater objectives are set so that:

(a) They are "within the same attribute state as existing freshwater quality" in relation to the attributes listed in Appendix 2; or

(b) The values for the FMU "will not be worse off when compared to existing freshwater quality" in relation to any attributes not listed in Appendix 2.

58.5 Existing freshwater quality is defined by the NPS-FM as meaning "the quality of fresh water at the time the regional council commences the process of setting or reviewing freshwater objectives in accordance with Policy A1, Policy B1, and Policies CA1-CA4".[62]

59 Further guidance about defining "existing freshwater quality" is provided in the *Guide to the National Policy Statement for Freshwater Management 2014* (as amended 2017).[63] It advises that:

> Regional councils will need to understand existing freshwater quality to set freshwater objectives, and to identify whether freshwater quality is maintained or improved in the future.
>
> Freshwater quality naturally fluctuates over time, and an assessment of freshwater quality should not be based on a single point in time. The existing state is likely to be determined using a baseline of the most up-to-date data available at the time councils begin to determine freshwater objectives, using scientifically robust methods (eg, through use of annual median data and long-term trends).

[62] NPS-FM, 8.

[63] Ministry for the Environment, *A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017)* (December 2017).

> An assessment of existing freshwater quality is not intended to be based on an anticipated future state of freshwater quality.[64]

60 Maintaining overall water quality was previously discussed in three cases before the Environment Court:

60.1 In *Puke Coal Ltd v Waikato Regional Council*,[65] the Environment was required to determine appeals regarding the grant of resource consents to establish a municipal solid waste landfill in part of an opencast coal mine near Glen Afton and Pukemiro in the Waikato region. However, the decision in *Puke Coal* contains limited commentary regarding the NPS-FM and provides no real assistance in determining what is implied by the "overall" approach to water quality in Objective A2. Essentially, the reasoning in *Puke Coal* turns exclusively on the Court's interpretation of the Vision and Strategy that provided the basis for the Court's finding that "some betterment is intended".[66] This finding was based on the Court's observation that the Vision and Strategy clearly "intends to go further than avoiding [sic] effect",[67] and while not expressly articulated in the decision this finding is consistent with the approach now found in PC1 that requires active mitigation steps to be taken via FEPs and sub-catchment management to maintain or (where necessary) improve water quality. The key issue for PC1 (as varied) however is that active mitigation or remediation via FEPs is not now required until 1 March 2022 (at the earliest) and that no action is required in the interim.

60.2 While the Court in *Ngati Kahungunu Iwi Inc v Hawke's Bay Regional Council* clearly turned its mind to the NPS-FM regarding the question of "overall" quality in the context of a regional land use and freshwater plan change appeal, the discussion about Objective A2 was limited.[68] Primarily, the decision is focused on the perceived reluctance of the regional council to grapple with ground water quality due to the "load to come". For example, the Court stated:

> If the *load to come* argument has any superficial appeal, it cannot succeed against the truth that we

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64 Ministry for the Environment, *A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017)* (December 2017), 22.

65 *Puke Coal Ltd v Waikato Regional Council* [2014] NZEnvC 223.

66 [2014] NZEnvC 223 at [92].

67 [2014] NZEnvC 223 at [92].

68 *Ngati Kahungunu Iwi Inc v Hawke's Bay Regional Council* [2015] NZEnvC 50 at [59].

> know what makes the quality of groundwater worse – ie putting pollutants into it. So, if we appropriately manage potential pollutants entering it now, its quality at least will not get worse (ie it will be *maintained*) and, as the inherited pollutants slowly work their way out it, it will get better (ie it will be *improved*). Having a sub-optimal present is not an excuse for failing to strive for an optimal (or, at least, closer to optimal) future.[69] (Emphasis original)

60.3 Although the Court criticised Objective A2 because it "clouded" the issue by failing to define "what *overall* should be taken to mean", its primary concern focused on the practicality (from its perspective) of implementing such an approach. These concerns arose from the fact that the overall approach in Objective A2 in the NPS-FM (2014) focused on the "region" rather than spatially smaller "freshwater management units".[70]

60.4 In *Sustainable Matata v Bay of Plenty Regional Council*,[71] the Environment Court was required to determine appeals against designations for public works and resource consent applications made by Whakatane District Council for a new wastewater treatment plant on land in the township of Matata. The Court found that the general thrust of the NPS-FM was "towards maintenance and enhancement of values".[72] In particular, the Court noted the requirement in Objective A2 of the NPS-FM to maintain or improve overall water quality in the region and specifically to improve water quality in water bodies "that have been degraded by human activities to the point of being over-allocated",[73] but it observed that over-allocation could not be determined until freshwater objectives had been set by preparing or changing the regional plan in accordance with the NPS-FM.[74] The Court specifically considered Policy A2 and the requirement to maintain or improve overall water quality across the region. It stated:

> The question of the use of the word *overall* in A2 is an issue. It would seem the applicant relies on an interpretation that, provided the quality in the region is maintained or improved *overall*, consent to reduce the

[69] [2015] NZEnvC 50 at [74].

[70] [2015] NZEnvC 50 at [61].

[71] *Sustainable Matata v Bay of Plenty Regional Council* (2015) 18 ELRNZ 620.

[72] (2015) 18 ELRNZ 620 at [357].

[73] (2015) 18 ELRNZ 620 at [364].

[74] (2015) 18 ELRNZ 620 at [365].

> quality in one area may be appropriate. In other words an *overs and unders* approach. We need to be careful confirming that this is indeed the interpretation to be given to this objective. Could it be simply an adjective referring to the overall goal to maintain/not let things slip backwards? The *Freshwater Policy Statement* references this overall quality to the region. The region is clearly made up of more than one catchment.[75]

60.5 The Court then considered Policy A2 in the context of the relevant RMA provisions that inform (inter alia) plan preparation, and stated:

> Once we consider the primary objective to safeguard the life supporting capacity and sheet this home to pt 2 and the Regional Council's functions, we conclude that maintenance at least must be assumed. Adding to an existing background level albeit degraded, will not achieve maintenance.[76]

60.6 The common themes from these decisions are the Court's emphasis on the assumption that existing water quality will, as a minimum, be maintained; and its general concern about applying "an *overs and unders* approach" across the whole region. For example, in *Ngati Kahungunu* these concerns arose from the fact that the overall approach in Objective A2 in the NPS-FM (2014) focused on the "region" rather than spatially smaller "freshwater management units".[77]

60.7 The distinguishing factors between these decisions and PC1 are that Objective A2 of the NPS-FM (as amended in 2017) now clearly focuses on maintaining or improving overall water quality at FMU level rather than the region (or catchment) as a whole; that within FMUs the NPS-FM "allows some variability in terms of freshwater quality, as long as the overall freshwater quality is maintained";[78] that the NPS-FM (as amended in 2017) as noted below now provides clear guidance on when "improvement" of water quality is required; and that the scientific understanding around groundwater attenuation is now more advanced and as a result previous concerns about a "load to come" now appear to be exaggerated.[79]

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[75] (2015) 18 ELRNZ 620 at [374].

[76] (2015) 18 ELRNZ 620 at [377].

[77] [61].

[78] NPS-FM, Preamble, 5.

[79] Mr Williamson, EIC paras 5-36.

61 Generally, freshwater quality is now required to be "improved" under the NPS-FM in four cases:

61.1 Where community values are not met.[80]

61.2 For the human health value, unless regional targets have been achieved or naturally occurring processes mean further improvement is not possible.[81]

61.3 Where freshwater quality has been degraded by human activities to the point of over-allocation (either because the resource (e.g. assimilative capacity) has been allocated to users beyond a limit, or because freshwater objectives are not met).[82]

61.4 Where existing freshwater quality is already below the national bottom line, unless this is due to naturally occurring processes or the operation of existing significant infrastructure.[83]

62 In other cases, "maintaining" existing freshwater quality is likely to be appropriate. Beyond that, adopting a practical approach to maintaining overall water quality at sub-catchment or FMU level that "allows some variability in terms of freshwater quality, as long as the overall freshwater quality is maintained within a freshwater management unit"[84] is now appropriate.

63 These matters are fully addressed in the evidence of Dr Neale[85] and Mr McKay.[86]

Other NPS and NES

64 The National Policy Statement for Renewable Energy Generation (**NPS-REG**) emphasises both the need to develop, operate, maintain, and upgrade renewable energy generation throughout New Zealand; and the general benefits of renewable electricity generation. Under the NPS-FM, hydroelectric power generation is listed as one of the national freshwater values in Appendix 1, and Policy CA2(a) requires regional councils to consider all national values listed in Appendix 1 when formulating freshwater objectives.

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80 NPS-FM, Preamble, 5.

81 NPS-FM, Preamble, 5.

82 NPS-FM, Objective A2(c).

83 NPS-FM, Policy CA3.

84 NPS-FM, Preamble, 5.

85 Dr Neale, EIC paras 14-20.

86 Mr McKay, EIC paras 15-17.

Accordingly, the NPS-REG is relevant in the context of the values and uses for (inter alia) the Waikato River in Section 3.11.1 of PC1.

65 The Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (**NES-SHDW**) are designed to assist WRC in managing the effects of activities on drinking water sources to help avoid the outbreak of illness as a result of drinking water contamination, by declining the grant of discharge permits that are likely to result in a breach of health criteria and drinking water becoming unsafe for human consumption. Conditions are required to be imposed on any consent granted requiring notification of drinking water suppliers if any significant unintended effects occur that may adversely affect sources of human drinking water (for 25 people or more). The NES-SHDW is also designed to ensure that permitted activity rules will not result in community drinking water supplies (for 500 people or more) breaching health quality criteria and being rendered unsafe for human consumption after existing treatment. Accordingly, the NES-SHDW will be relevant in the context of the permitted activity rules in PC1 that will be considered later as part of the Block 2 Hearing Topics.

66 The Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (**NES-PF**) provide nationally consistent regulations (in place of district and regional rules) pertaining to afforestation, pruning, earthworks, river crossings, forestry quarrying, harvesting, mechanical land preparation, and replanting. The NES-PF came into force on 1 May 2018. Accordingly, the NES-PF will be relevant in the context of the amended conditions for permitted activities under Rule 5.1.4.11 of the WRP regarding the new requirements for Harvest Plans that are proposed to be inserted by PC1, and will be considered later as part of the Block 3 Hearing Topics.

MfE work programmes

67 The Ministers for the Environment and Primary Industries launched the *Essential Freshwater* work programme on 8 October 2018. The document sets the freshwater agenda for the next two years. The work programme is ambitious and seeks to put in place new rules by 2020 to prevent further degradation of freshwater quality, to achieve a "noticeable improvement in freshwater quality by 2023, and to promote restoration activities that will "bring our freshwater resources, waterways and ecosystems to a healthy state within a generation"[87] (generally 30 years as defined by the Oxford English Dictionary). While implementing the work programme will require amendment of the NPS-FM, promulgating a new NES, and further legislative changes to the RMA, the document recognises the

[87] Ministry for the Environment and Minstry for Primary Industries, *Essential Freshwater: Healthy Water, Fairly Allocated* (October 2018), 6-7.

aspirational role played by voluntary action and the legitimate role played by regulation in ensuring compliance.[88]

68 Beyond that, the related Cabinet Paper notes that: "introducing limits means that decisions on how to allocate the rights to use resources are unavoidable – not making a decision is actually a decision for the status quo".[89]

69 The Section 42A Report contends that:

> This work programme will not directly affect the PC1 hearing process because RMA decision-makers cannot have regard to non-statutory Government discussion documents or Ministerial announcements.[90]

70 However, in 2002 the Environment Court in *Environmental Defence Society v Auckland Regional Council* had regard to similar announcements made about the Government's "clear preferred policy" in relation to climate change when considering the efficacy of including conditions requiring the planting of forest sinks on the grant of resource consent for a new power station.[91] It is for note that Government policy was then at an early stage and that the final policy package did not become law until 2008 following the amendment of the Climate Change Response Act 2002. But the simple point is that the EDS decision provides a precedent for RMA decision-makers to have regard to Ministerial policy announcements.

71 Accordingly, the documents released by the Minister in October 2018 setting the freshwater agenda will be relevant in relation to PC1. In particular, the new timescales for improving freshwater quality and the emphasis on allocation (noted above) are directly relevant in relation to the structure, context, and overall direction of PC1.

72 Beyond that, the long-term timescale announced by the Minister for bringing "our freshwater resources, waterways and ecosystems to a healthy state within a generation", appears to be consistent with the current national target of ensuring that 90% of rivers and lakes are suitable for primary contact (including swimming) by 2040. The

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88 Ministry for the Environment and Minstry for Primary Industries, *Essential Freshwater: Healthy Water, Fairly Allocated* (October 2018), 6.

89 Cabinet Paper: Restoring our freshwater and waterways (CAB-18-MIN-0296), para 88.

90 Section 42A Report, 9 para 40.

91 *Environmental Defence Society v Auckland Regional Council* [2002] NZRMA 441 at [28] and [88].

Minister's single "generation" announcement implies that 100% compliance could be required as early as 2050.

73 Given the timescales of both PC1 and the NPS-FM review, it is likely that new national policies could be in place before PC1 becomes operative, and that PC1 may need to be amended to conform with any new or amended NPS-FM.

74 For example, the Environment Court was faced with a similar issue in *Carter Holt Harvey Ltd v Waikato Regional Council* when the NPS-FM was issued when "Variation 6 was almost at the end of its statutory process".[92] However, the Court gave directions for conferencing by the expert planning witnesses to "consider the implications" of the NPS-FM. The Court found that:

> It was generally considered that with a number of suggested amendments the Variation would generally give effect to the Policy Statement.[93]

75 A similar process may therefore be required at some juncture before PC1 becomes operative.

National Planning Standards

76 The draft National Planning Standards were notified in June 2018. They are designed to promote consistency between (inter alia) regional plans in terms of their structure, format, and content. They are likely to come into force during 2019.

77 Generally, it will be appropriate to amend PC1 where possible to comply with the standards to avoid the need for further Schedule 1 process (particularly in relation to any discretionary standards) and provide certainty for people, communities, and resource users. The Section 42A Report echoes this theme but notes that:

> It is unclear whether or not the Panel would be able to introduce new definitions, or amend existing ones in PC1, in the absence of submissions having sought those **precise** changes. (Emphasis added)[94]

78 Given the very broad scope of the 1,084 submissions made about PC1 and Var1 it is likely that a more pragmatic approach can be taken to ensuring that PC1 is fully compliant with emerging national direction under the RMA, and that a search for surgical precision is

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92 *Carter Holt Harvey Ltd v Waikato Regional Council* [2011] NZEnvC 380 at [68].

93 [2011] NZEnvC 380 at [70].

94 Section 42A Report, 10 para 43.

not required. Indeed, the general law indicates that jurisdictional scope will include the PC1 provisions as notified, any amendments requested by the submissions, and somewhere in between these positions.[95]

Waikato River Vision and Strategy

79 The Vision and Strategy for the Waikato River is provided for by the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (**Settlement Act**), and is included in Section 2.5 of the WRPS.

80 Section 8(3) of the Settlement Act recognises the significance of the Waikato River for Waikato-Tainui and states:

> The Waikato River is our tupuna (ancestor) which has mana (spiritual authority and power) and in turn represents the mana and mauri (life force) of Waikato-Tainui. The Waikato River is a single indivisible being that flows from Te Taheke Hukahuka to Te Puuaha o Waikato (the mouth) and includes its waters, banks and beds (and all minerals under them) and its streams, waterways, tributaries, lakes, aquatic fisheries, vegetation, flood plains, wetlands, islands, springs, water column, airspace, and substratum as well as its metaphysical being. Our relationship with the Waikato River, and our respect for it, gives rise to our responsibilities to protect te mana o te Awa and to exercise our mana whakahaere in accordance with long established tikanga to ensure the wellbeing of the river. Our relationship with the river and our respect for it lies at the heart of our spiritual and physical wellbeing, and our tribal identity and culture.

81 In addition, s 9(1) of the Settlement Act recognises the "national importance" of the contribution made by the Waikato River to New Zealand's cultural, social, environmental, and economic wellbeing.

82 The Vision and Strategy applies to the Waikato River and activities carried on within its catchment that may affect the Waikato River in some way.[96] In particular, the Vision and Strategy relates to the duties and restrictions in s 11 to s 15 of the RMA pertaining to (inter alia) the discharge of contaminants into the environment.[97] The duties and restrictions in s 11 to s 15 of the RMA (that absent relevant rules requiring prior consent for activities) also prevail (in the event of any conflict) over s 59 to s 77 of the RMA regarding the

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[95] *Countdown Properties (Northlands) Ltd v Dunedin City Council* [1994] NZRMA 145.

[96] Settlement Act, s 9(2).

[97] Settlement Act, s 10(1).

purpose and content of regional policy statements, regional plans, and district plans.[98]

83 Under s 11 of the Settlement Act, the Vision and Strategy is deemed to be part of the WRPS. Beyond that, the Vision and Strategy also prevails over any "inconsistent" provision in any NPS, NES, and the New Zealand Coastal Policy Statement 2010 (**NZCPS**).[99] In particular, any rule included in the regional plan for the purposes of giving effect to the Vision and Strategy prevails over any NES where the rule is more stringent than the NES.[100]

84 Where appropriate the Vision and Strategy may be used as the trigger for reviewing consent conditions under s 128 of the RMA.[101]

85 Generally, s 17 of the Settlement Act imposes a duty to have "particular regard" to the Vision and Strategy on persons carrying out functions or exercising powers under a number of statutes, including (inter alia) the RMA, where such functions or powers relate to the Waikato River or activities carried out in the catchment that affect the Waikato River in some way. This duty does not however apply to functions or powers exercised under the RMA where the activities in question are already regulated via the WRPS or the WRP as a result of implementation of the Vision and Strategy (e.g. water takes).[102]

86 In summary, four points can be made regarding the impact of the Vision and Strategy in this case:

86.1 The language used in s 17(3) and (5) of the Settlement Act elevates the status of the Vision and Strategy (regarding the discharge of contaminants into the environment) to a "matter of importance" similar to the matters provided for in s 7 of the RMA, while the Waikato River itself as an environmental resource (under s 9(1) of the Settlement Act) is a matter of "national" importance similar to the matters provided for in s 6 of the RMA.

86.2 The Vision and Strategy "trumps" –

(a) The regional plan preparation powers in s 63 to s 70 of the RMA in cases where they would be "inconsistent" with the requirement for prior consent in s 15 of the RMA; and

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98 Settlement Act, s 10(2).

99 Settlement Act, s 12(1); Section 42A Report, 11 para 49.

100 Settlement Act, s 12(4).

101 Settlement Act, s 14(2).

102 Settlement Act, s 17(2)(b).

(b) Any "inconsistent" NPS-FM or NES provisions regarding the discharge of contaminants into the environment.

86.3 Regional rules (regarding the discharge of contaminants into the environment) that are designed to implement the Vision and Strategy can be more stringent than any relevant NES provision.

86.4 Providing for land use activities under s 9(2) of the RMA is subject to the general duty in s 17(3) of the Settlement Act to have "particular regard" to the Vision and Strategy – in addition to usual RMA requirements.

87 Thus, in relation to the preparation of PC1, the two primary questions for this hearing regarding the Vision and Strategy appear to be:

87.1 Whether providing for permitted activities regarding the discharge of contaminants into the environment would be "inconsistent" with the Vision and Strategy.

87.2 Whether in relation to the regulation of contaminant discharges into the environment there is any "inconsistency" between the NPS-FM on the one hand and the Vision and Strategy on the other hand – i.e. which statutory planning provisions should prevail.

88 Generally, the Vision and Strategy as part of the WRPS will be relevant regarding the preparation of PC1 under s 66(2)(d) and s 67(3) of the RMA.[103]

Objectives and Strategies

89 The Vision and Strategy for the Waikato River set out in Schedule 2 of the Settlement Act focuses on the life-sustaining capacity of the Waikato River including its catchment, managing the natural and physical resources of the Waikato River to enable economic and community wellbeing that in turn enables the community to restore and protect the Waikato River, and inter-generational equity.[104]

90 The objectives of the Vision and Strategy (relevant to the regulation of diffuse contaminant discharges from farming activities) include:

[103] Settlement Act, s 11.

[104] Settlement Act, Sch 2, cl 1(2).

90.1 Restoring and protecting the health and wellbeing (life-supporting capacity) of the Waikato River.[105]

90.2 Adopting an integrated, holistic, and coordinated approach to management of the natural and physical resources of the Waikato River.[106]

90.3 Adopting a precautionary approach to decision-making, particularly in relation any "significant adverse effects" and any "effects that threaten serious or irreversible damage to the Waikato River".[107]

90.4 Avoiding any adverse cumulative effects (including potential effects) of activities "on the health and wellbeing of the Waikato River".[108]

90.5 Preventing any further degradation of the Waikato River from human activities as a result of the absorption of contaminants.[109]

90.6 Protecting significant flora and fauna and their habitats.[110]

90.7 Restoring water quality within the Waikato River "so that it is safe for people to swim and take food from over its entire length".[111]

91 The objectives in the Vision and Strategy are to be achieved by following a series of strategies (relevant to the regulation of diffuse contaminant discharges from farming activities) including:

91.1 Giving the highest level of recognition to restoring and protecting the Waikato River.[112]

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[105] Settlement Act, Sch 2, cl 1(3)(a); WRPS, 2.5.2 Objectives for the Waikato River (a).

[106] Settlement Act, Sch 2, cl 1(3)(e); WRPS, 2.5.2 Objectives for the Waikato River (e).

[107] Settlement Act, Sch 2, cl 1(3)(f); WRPS, 2.5.2 Objectives for the Waikato River (f).

[108] Settlement Act, Sch 2, cl 1(3)(g); WRPS, 2.5.2 Objectives for the Waikato River (g).

[109] Settlement Act, Sch 2, cl 1(3)(h); WRPS, 2.5.2 Objectives for the Waikato River (h).

[110] Settlement Act, Sch 2, cl 1(3)(i); WRPS, 2.5.2 Objectives for the Waikato River (i).

[111] Settlement Act, Sch 2, cl 1(3)(k); WRPS, 2.5.2 Objectives for the Waikato River (k).

91.2 Establishing the "current health status" of the Waikato River.[113]

91.3 Developing targets for "improving" the health and wellbeing of the Waikato River.[114]

91.4 Developing and implementing an action programme to implement the freshwater targets.[115]

91.5 Recognising and protecting "appropriate" sites (including "significant" habitats of flora and fauna).[116]

91.6 Encouraging and fostering a "whole of river" approach to restoration and protection, "including the development, recognition, and promotion of best practice methods for restoring and protecting the health and wellbeing of the Waikato River".[117]

91.7 Ensuring that cumulative adverse effects of activities on the Waikato River "are appropriately managed".[118]

92 These objectives and strategies are to be pursued by applying "both maaturanga Maaori and the latest available scientific methods".[119]

93 Additionally, the Vision and Strategy also pursues wider social, economic, cultural, and spiritual objectives including:

93.1 Restoring and protecting the relationships of Waikato-Tainui, Waikato River iwi, and the Waikato region's communities with

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[112] Settlement Act, Sch 2, cl 2(a); WRPS, 2.5.3 Strategies for the Waikato River (a).

[113] Settlement Act, Sch 2, cl 2(b); WRPS, 2.5.3 Strategies for the Waikato River (b).

[114] Settlement Act, Sch 2, cl 2(c); WRPS, 2.5.3 Strategies for the Waikato River (c).

[115] Settlement Act, Sch 2, cl 2(d); WRPS, 2.5.3 Strategies for the Waikato River (d).

[116] Settlement Act, Sch 2, cl 2(f); WRPS, 2.5.3 Strategies for the Waikato River (f).

[117] Settlement Act, Sch 2, cl 2(i); WRPS, 2.5.3 Strategies for the Waikato River (i).

[118] Settlement Act, Sch 2, cl 2(k); WRPS, 2.5.3 Strategies for the Waikato River (k).

[119] Settlement Act, Sch 2, cl 1(3)(m) and cl 2(b) and (c); WRPS, 2.5.3 Strategies for the Waikato River (b).

the Waikato River (including their economic, social, cultural, and spiritual relationships).[120]

93.2 Recognising the strategic importance of the Waikato River to New Zealand's cultural, social, environmental, and economic wellbeing (in accordance with s 9(1) of the Settlement Act).[121]

94 Generally, in terms of the key requirements of the Vision and Strategy, whether restoration or protection is required will depend on the current health status of the Waikato River catchment within relevant sub-catchments, as defined by Table 3.11-2 and Map 3.11-2 in PC1, in light of any temporal or spatial variability. Establishing the current health status for the Waikato River, developing targets for improving river health and wellbeing, and implementing an action programme to meet the targets over time will clearly be science based, and relate directly to Objectives 1 and 3, Table 3.11-1 and Schedule 1 (FEPs) in PC1. Recognising and protecting appropriate sites is directly related to Objective 6 and Policy 15 regarding the Whangamarino wetland. Encouraging and fostering (inter alia) best practice methods will be directly related to the contents of Schedule 1 (Farm Environment Plans). Ensuring that cumulative effects are appropriately managed will have a direct relationship with the proposed rules in PC1 (particularly, Rules 3.11.5.1-3.11.5.6).

The question of inconsistency

95 The only point of inconsistency raised in the Section 42A Report regarding the relative "ranking" of the NPS-FM and the Vision and Strategy concerns swimming. The report states:

> The Vision and Strategy for the Waikato River seeks to achieve water quality of a level where the Waikato River is **safe to swim in along its entire length**. This outcome likely requires water quality to be better than that required by the NPS-FM, as such **the value for recreation reflects this aspiration**. As the Vision and Strategy has a higher statutory ranking than the NPS-FM, it is recommended that the value is retained as notified. (Emphasis added)[122]

96 However, this discussion raises two issues. First, whether the Officers applied the approach outlined by the Supreme Court in *Environmental Defence Society v New Zealand King Salmon Co*

[120] Settlement Act, Sch 2, cl 1(3)(b)-(d); WRPS, 2.5.2 Objectives for the Waikato River (b), (c), and (d).

[121] Settlement Act, Sch 2, cl 1(3)(j); WRPS, 2.5.2 Objectives for the Waikato River (j).

[122] Section 42A Report, 39 para 225.

Ltd.[123] Second, whether there is actually any inconsistency between the two documents regarding swimming.

97 The Supreme Court in *King Salmon*, approached the question of inconsistency or conflict by identifying the relevant provisions "paying careful attention to the way in which they are expressed", and by giving greater weight to any provisions that are "expressed in more directive terms".[124] The Court concluded:

> [129] … It may be that an apparent conflict between particular policies will dissolve if close attention is paid to the way in which the policies are expressed.
>
> [130] Only if the conflict remains after this analysis has been undertaken is there any justification for reaching a determination which has one policy prevailing over another …

98 In this case, the environmental outcome that PC1 Objective 1 seeks to achieve is that the Waikato River should be safe to swim in along its entire length by 2096, while Objective 3 seeks to achieve 10% of the desired long-term improvement in water quality by 2026. In contrast, Appendix 6 of the NPS-FM (as amended) provides national targets for water quality improvement in relation to primary contact (that involves immersion in water, including swimming) and seeks to ensure that 71% of rivers and lakes should be suitable for (inter alia) swimming by 2017, 80% by 2030, and 90% by 2040. It is therefore difficult to understand the Officers' conclusion when the documents are compared in this way.

99 Beyond that, s 12(1) of the Settlement Act provides that the Vision and Strategy only prevails over any "inconsistent" NPS provision. Again, it is difficult to reconcile the conclusion that the two documents are inconsistent based on the view that the Vision and Strategy requires water quality to be better than NPS-FM when the NPS-FM seeks to achieve a significant improvement in water quality (90%) within a more stringent time period (by 2040).

100 Looked at in this way the apparent conflict or inconsistency appears to have dissolved.

101 Accordingly, the two documents retain their ordinary places in the RMA hierarchy. WRC is required to give effect to both documents. Both documents include substantially similar objectives in terms of anticipated environmental outcomes. Albeit, that the NPS-FM includes some interim steps that are not explicit in PC1 but are not

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[123] *Environmental Defence Society v New Zealand King Salmon Co Ltd* [2014] NZSC 38.

[124] [2014] NZSC 38 at [129].

inconsistent. Generally, the two documents can be applied in a complementary and harmonious way.[125]

102 These matters are also addressed in the evidence of Mr Ford[126] and Mr McKay.[127]

A4. COLLABORATIVE DEVELOPMENT PROCESS

103 WRC established a 24 member Collaborative Stakeholder Group (**CSG**) "to act as a central conduit for stakeholder and broader community involvement" in the PC1 preparation process".[128]

104 The central role played by the CSG in the development of PC1 is outlined in Part B.2.7 of the Section 32 Evaluation Report.

105 In summary, the CSG's role included identifying the values and uses that were ultimately included in Section 3.11.1 of PC1, developing the policy selection criteria that were used to "filter" various policy options, and recommending drafting solutions for PC1 to the Healthy Rivers Wai Ora (**HRWO**) Committee. The specialist members of the Technical Leaders Group (**TLG**) who provided technical assistance, scenario modelling, and created an assessment framework to help the CSG in developing the policy mix for PC1, supported the CSG in its role.

106 In turn the HRWO Committee provided a vehicle for the co-governance partners (iwi and WRC) under the Settlement Act to make final decisions on the content and format of PC1 and to recommend PC1 to WRC for adoption and notification pursuant to a full Council meeting resolution.

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[125] While the Environment Court decision in *Puke Coal* (noted above) found that "it is clear that the Settlement Act is both specific to these waterways and in accordance with Section 12 of that Act, *prevails* over the NPS Freshwater 2011 and 2014" ([2014] NZEnvC 223 at [121]) (emphasis original), there was no discussion in the decision about "inconsistency", or the respects in which the NPS-FM provisions were considered by the Court to be inconsistent with the Settlement Act, notwithstaning the fact that a reasoned finding of inconsistency is necessary under s 12(1) of the Settlement Act in order for the Vision and Strategy to prevail over the NPS-FM. Despite reference to *King Salmon* in *Puke Coal*, the Court did not adopt the *King Salmon* approach to properly identifying or attempting to resolve any issues of inconsistency before making its finding to that effect. Accordingly, the decision in *Puke Coal* appears to be an outlier and is not consistent with the *King Salmon* approach to inconsistency.

[126] Mr Ford, EIC paras 6-29.

[127] Mr McKay, EIC paras 9-11.

[128] Section 42A Report, 12 para 54.

107 While the CSG clearly played a pivotal role in the preparation of PC1, the results of the CSG process do not have any special weight because PC1 was notified before the 2017 RMA amendments came into force.[129] It was therefore merely part of the consultation process that WRC undertook under sch 1 of the RMA, s 82 of the Local Government Act 2002 (**LGA**), and s 17(6) of the Settlement Act.

A5. WAIKATO FRESHWATER STRATEGY

108 The Waikato Freshwater Strategy was adopted by WRC in 2017 and builds on the existing provisions in the WRP (Chapters 3.3 and 3.10) and PC1 regarding freshwater quality and quantity, and "provides a roadmap that will deliver best use of fresh water over the next 50 years and beyond".[130]

109 However, as a non-statutory document it is not included in the list of matters that must be considered by WRC when preparing PC1 under s 66 of the RMA. While providing a useful overview, the strategy does not appear to have any substantive influence on the PC1 process.

A6. WATER QUALITY AND ECOSYSTEM HEALTH

110 The Section 42A Report provides an overview of the current state of the Waikato River catchment. Notwithstanding the fact that it is fed by more than 17,000km of tributary streams, the Report notes that the Waikato River "is considered to be a lake-fed river".[131]

111 For the purposes of freshwater management under the NPS-FM the Waikato River is divided into three FMUs. The Section 42A Report notes that:

> The predominant land uses in the Upper Waikato River FMU are pasture and cropping, 49% and exotic forest, 39%. The remaining area is covered with indigenous vegetation, 13%, and very small areas of lakes, wetlands and urban areas.[132]

112 The Estate is located in the Upper Waikato River FMU. There are 21 representative freshwater quality monitoring sites in the Upper Waikato River FMU.[133]

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[129] Resource Legislation Amendment Act 2017, sch 12, pt 2, cl 14(1)(b).

[130] Section 42A Report, 12-13 paras 58 and 61.

[131] Section 42A Report, 13 para 64

[132] Section 42A Report, 13 para 67.

[133] Section 42A Report, 17 para 85.

113 The Section 42A Report also notes that the Waikato River "has significant cultural, environmental, economic and social/recreational values both locally and nationally"[134] that are identified in Section 3.11.1 of PC1.

114 The rules in PC1 focus on the diffuse discharge of N, phosphorus (**P**), sediment, and microbial pathogens onto or into land in circumstances that may result in these contaminants entering water. In terms of their "pathway", the Section 42A Report notes that N loss occurs "via leaching from the plant root zone"; whereas P, sediment, and microbial pathogens "are generally lost to rivers and lakes via overland flow or artificial drainage".[135]

115 In terms of the current state of the Waikato River catchment, the Sections 42A Report records that:

115.1 Generally, freshwater quality is good in the main stem of the upper Waikato River.[136]

115.2 N levels in the Waikato River have been slowly but steadily rising over the last 20 years, and that while:

> N in groundwater can take many decades to emerge into surface water, and as a result, it is likely that N levels will continue to increase over time

the analysis of ground water chemistry (recorded in the report) indicates that N levels are not increasing in any of the sub-catchments in the Upper Waikato River FMU.[137]

115.3 Total phosphorus (**TP**) shows an important improvement in the Upper Waikato River FMU at Ohaaki.[138]

115.4 Sediment levels in the lower reaches of the Waikato River are high and have increased over the past 20 years.[139]

115.5 Microbial contaminant levels are low in the main channel of the upper Waikato River, but high in the tributaries.[140]

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[134] Section 42A Report, 13 para 66.

[135] Section 42A Report, 15 para 77.

[136] Section 42A Report, 17 para 90.

[137] Section 42A Report, 17 and 19 paras 92 and 99.

[138] Section 42A Report, 18 paras 95-96 and Table 1.

[139] Section 42A Report, 17 para 92.

[140] Section 42A Report, 17 para 92.

116 Overall, the overview in the Section 42A Report shows that freshwater quality in the Upper Waikato River FMU and its constituent sub-catchments is generally good, and consistent with a need to "maintain" or "protect" freshwater quality in this FMU to ensure that appropriate short-term and long-term freshwater objectives are met.

117 These matters are fully addressed in the evidence of Dr Neale[141] and Mr Ford.[142]

PART B – OUTCOMES

TOPIC B1. OVERALL DIRECTION AND WHOLE PLAN SUBMISSIONS

118 The Section 42A Report summarises the overall direction of PC1 and whole plan submissions. It notes that an 80-year time period for restoring the health and well being of the Waikato River catchment was determined by the CSG. Effectively, this sets a "straight line" trajectory for achieving this objective, and the short-term (10 year) targets for improving freshwater quality are considered to be consistent with this pathway.[143]

119 In terms of the overall direction of PC1, the Section 42A Report notes that while N is specifically regulated via the NRP:

> FEPs are the intended mechanism for managing all four contaminants, with particular emphasis on farming activities staying within their NRP, or reducing their N loss if they are one of the more contaminating farming activities in each FMU.[144]

120 This analysis calls into question the efficiency and effectiveness of the NRP provisions outside the framework of the FEP requirements, and it is for note that the Section 42A Report indicates that the NRP provisions are now being reconsidered and may be replaced by a greater emphasis on controlling farming activities through FEPs and GMP.[145] WPL generally supports this approach.

121 The Section 42A Report also addresses the "need for an immediate halt to activities that may cause additional decline in water

[141] Dr Neale, EIC paras 7-23.

[142] Mr Ford, EIC paras 30-36.

[143] Section 42A Report, 20 and 23 paras 102 and 119.

[144] Section 42A Report, 25 para 128.

[145] Section 42A Report, 26 para 132.

quality",[146] and submissions that put greater emphasis on sub-catchment planning or seek alternative regulatory approaches (e.g. land use capability).

122 While the Vision and Strategy seeks to avoid adverse cumulative effects and to prevent further degradation in the Waikato River catchment as a whole, the objectives in the Vision and Strategy provide a firm basis for regulatory intervention by requiring resource consent for farming activities and associated diffuse contaminant discharges, but they do not require an "immediate" halt for land use change. The relevant freshwater objectives in Objectives 1 and 3 and Table 3.11-1 of PC1 will ultimately be the determinative factors, together with any mitigation specified in the FEP.

123 Likewise, having regard to land use capability and "enhanced mitigation" does not appear to be inconsistent with the NPS-FM or the Vision and Strategy. Indeed, "matching land use to land capability" is a specific matter that must be assessed under cl 2(d)(i) of Schedule 1 in PC1 when preparing FEPs. Accordingly, this should be given further consideration when the Block 3 Hearing Topics are addressed in detail.

124 The Report also notes "the arguments for a sub-catchment approach are compelling".[147] For example:

> In some areas of the Upper Waikato catchment the 80-year water objectives equate with current water quality. The modelling and limit and target setting purposefully used the available monitoring data for the sub-catchments, inherently recognising the contribution of sub-catchments to overall water quality in the river's main stems.[148]

125 Contrary to the suggestion in the Section 42A Report, that the sub-catchment approach is not well supported by the higher level planning documents:

125.1 The NPS-FM is focused on managing freshwater quality at FMU scale while seeking to manage "whole catchments" in an integrated way in accordance with Objective C1.

125.2 There is no predetermined scale for FMUs, and WRC is required to consider the spatial scale of FMUs throughout the PC1 preparation process.

[146] Section 42A Report, 24 para 123.

[147] Section 42A Report, 27 para 137.

[148] Section 42A Report, 27 para 136.

125.3 While WRC has elected to divide the Waikato River catchment into three FMUs, it has also established 62 monitoring sites across 74 sub-catchments, and included Method 3.11.5 in PC1 to encourage sub-catchment planning.

126 Sub-catchment planning will be addressed later as part of the Block 3 Hearing Topics. WPL supports a sub-catchment scale approach.

Overview of WPL submissions

127 Generally, WPL supports the broad objectives in PC1 to maintain or improve freshwater quality, but considers that PC1 requires amendment (as requested in the WPL submissions) to ensure that PC1 will in practice give effect to these objectives.

128 An overview of the WPL submissions is provided in Appendix 1 **attached** to these legal submissions.

TOPIC B2. VALUES AND USES

129 WPL made submissions on the Values and uses in Section 3.11.1 of PC1. WPL generally supports these provisions as notified but requested that Section 3.11.1 should be amended by inserting express links (via explanatory text or advice notes) between Section 3.11.1 and subsequent sections in PC1 to explain the specific relationship between particular values and uses and particular freshwater objectives and other related provisions (i.e. policies and rules).[149]

130 The Section 42A Report addresses this point and recommends that the introduction to PC1 should be amended to clarify that the values and uses apply to all FMUs unless expressly stated otherwise.[150] WPL agrees with this recommendation.

Springs

131 WPL also made submissions on Var1 that requested:

131.1 Deletion of the references to "springs" throughout Var1, or alternatively to amend Var1 by including an appropriate hydrological definition of "springs".[151] These submissions are rejected by the Section 42A Report because it is assumed that recourse to the standard Oxford English Dictionary definition of "springs" will suffice.[152] However, this does not

[149] WPL PC1-11260.

[150] Section 42A Report, 44-45 para 265.

[151] WPL V1PC1-442, V1PC1-448, and V1PC1-450.

[152] Section 42A Report, 33 paras 172-173.

take account of ephemeral springs that arise spasmodically on the Estate and whether they should or should not be regarded as "springs" given their temporary nature. These submissions are maintained by WPL and these matters are fully addressed in the evidence of Mr Williamson[153] and Mr McKay.[154] Mr Williamson considers that it would be appropriate to differentiate between permanent and ephemeral springs and recommends that the following hydrological definition should be included in the Glossary of Terms:

> **Springs**: means a water body derived from an underground source that flows year-round at a minimum flow rate of 5 L/s.

131.2 Amend relevant rules by inserting an advice note providing resource consent applicants with guidance on how to engage with Maori to identify whether there are any "harmful" waters that may need to be respected in some way.[155] These submissions are rejected by the Section 42A Report because information on Maori consultation is already provided in Module 2 of the WRP.[156] WPL agrees with this recommendation based on the assumption that these matters are limited solely to cultural and spiritual issues, and that they do not give rise to any public health concerns.

TOPIC B3. SCIENCE AND ECONOMICS

132 These legal submissions address the technical information (science and economics) that underpins PC1. This information was evaluated in Part C of the Section 32 Report (and the background documents listed in the bibliographies in that report), and considered in Part B3 of the Section 42A Report.

Assessing science and economic evidence

133 In *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66 the Environment Court considered the relevant factors that should be taken into account when assessing (inter alia) scientific evidence. These factors included:

> (1) the strength of the qualifications and the duration and quality of the experience of each witness;

[153] Mr Williamson, EIC paras 37-41.

[154] Mr McKay, EIC paras 18-22.

[155] WPL V1PC1-451.

[156] Section 42A Report, 38 para 211.

> (2) the reasons for each witness' opinions (and their consistency, coherence and presentation);
>
> (3) the objectivity and independence of each witness and the comprehensiveness of their evidence -- for example whether they have identified and taken into account matters which do not favour their opinion;
>
> (4) there is an identification of and general acceptance of the science of methodology involved; and
>
> (5) Especially for "hard" science - the research or papers referred to by the witnesses in reaching their opinions, with respect to whether:
>
> (a) the techniques used are reliable;
>
> (b) the error rates are known and published (and the research is shown to be statistically significant);
>
> (c) the research or papers have been published;
>
> (d) the research or papers have been subject to peer review;
>
> (e) the **research is repeatable** (and has been replicated). (Emphasis added)[157]

134 Overall, the Court stated that:

> Not all those aspects or even all parts of them need to be met -- they are criteria for measuring the weight to be given to the specific evidence when making findings. Factors (1)-(3) may be the only relevant ones for expert opinions which are only "science" in the softest sense eg town planning and resource management. Factor (4) comes into play more for the social sciences, physicians, epidemiologists and ecologists. **All of factors (1)-(5) are necessary in the evaluation of some ecological evidence and all hard science**. (Emphasis added)[158]

135 Thus, while all factors will be relevant in assessing the science based evidence in the Section 32 Report, only the first three factors will be relevant when assessing the economics based evidence.

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[157] *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66 at [144].

[158] *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66 at [145].

136 Subsequently, in *Long Bay – Okura Great Park Society Inc v Auckland Regional Council*,[159] the Environment Court analysed the steps involved in decision-making under the RMA. The Court found that:

> … after determining the facts and ascertaining the applicable law and before turning to its overall discretionary judgement, is to find what the probability and costs of the relevant effects are. That should maximize the accuracy of the consent authority's predictions; minimize costs or risk (those are not the same things) as appropriate; and approximate **best scientific methods of risk assessment**. Of course it is in the nature of evidence to a Court that probabilities can often only be established with large margins of error. Our point here is that it is the approximate probability(ies) of any event (effect) which should be established regardless of what that probability is, and even if it is below 50% (0.5). If necessary the probability can be given as a range - e.g., 33% - 67% (0.33 to 0.67) probability as a medium likelihood … What is not useful is an arbitrary standard of acceptance of the probability as fact, i.e., whether on the Court's assessment the probability of the predicted event exceeds 50% (0.5). (Emphasis added)[160]

137 This led the Court to state that:

> There are at least three steps when predicting the risk of any proposed activity affecting natural and physical resources under the RMA. They are to assess:
>
> (1) the nature of the proposed or existing activity and its context. This usually needs to be analysed in terms of spatial extent, intensity, and duration (all of which are obviously easier to assess for an existing activity than for a proposed one);
>
> (2) whether there <u>is</u> a causal relationship between the activity and its 'effects' (and, often, the existence of confounding causes of the same sort of effect); and
>
> (3) the risk of the effect, which also consists of' three components-
>
> (a) the probability of the effect;

[159] *Long Bay – Okura Great Park Society Inc v Auckland Regional Council*, A78/2008.

[160] *Long Bay – Okura Great Park Society Inc v Auckland Regional Council*, A78/2008 at [322].

(b) its consequences (its costs and benefits); and

(c) the relevant policy or objective which the risk impinges upon.[161] (Emphasis in original)

138 Similarly, as noted above, further guidance about defining "existing freshwater quality" is provided in the *Guide to the National Policy Statement for Freshwater Management 2014* (as amended 2017).[162] It advises that:

> Regional councils will need to understand existing freshwater quality to set freshwater objectives, and to identify whether freshwater quality is maintained or improved in the future.
>
> Freshwater quality naturally fluctuates over time, and an assessment of freshwater quality should not be based on a single point in time. The existing state is likely to be determined using a baseline of the most up-to-date data available at the time councils begin to determine freshwater objectives, using **scientifically robust methods** (eg, through use of annual median data and long-term trends).
>
> An assessment of existing freshwater quality is not intended to be based on an anticipated future state of freshwater quality. (Emphasis added)[163]

139 Beyond that, the objectives and strategies in the Vision and Strategy (as noted above) are also to be pursued by applying "both maaturanga Maaori and the latest available scientific methods".[164]

Requirements for technical evidence

140 In summary, these requirements indicate that the evidence underpinning PC1 in terms of meeting the relevant statutory tests should be based on:

140.1 Appropriately qualified and experienced, objective and independent expert evidence;

140.2 Generally accepted scientific methodology capable of replication;

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[161] *Long Bay – Okura Great Park Society Inc v Auckland Regional Council*, A78/2008 at [323].

[162] Ministry for the Environment, *A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017)* (December 2017).

[163] Ministry for the Environment, *A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017)* (December 2017), 22.

[164] Settlement Act, Sch 2, cl 1(3)(m) and cl 2(b) and (c).

140.3 Best scientific methods of risk assessment;

140.4 Scientifically robust methods; and

140.5 Maaturanga Maaori and the latest available scientific methods.

Science and economic modelling

141 The science and economic experts for WPL have thoroughly interrogated the Section 32 Report and relevant background documents and found that:

Science modelling

141.1 The ground water lag assumptions do not appear to be well founded, and the links between reports touching on this topic and the PC1 provisions are unclear. In particular, the evidential basis for the assumed long-term ground water load having any significant adverse effects on surface water quality (i.e. due to its chemical composition) is unclear from the WRC modelling. These matters are fully addressed in the evidence of Mr Williamson and Mr McKay.[165] In particular, Mr Williamson found that:

(a) The objectives in PC1 are premised on the groundwater N "load to come". But this assumption is conceptually flawed because it is not consistent with redox chemistry (where oxidation and reduction are considered together as complementary processes). Put simply, as groundwater ages its chemical composition will change and as a result N will be attenuated through denitrification. Accordingly, it is unlikely (in terms of probability) that old groundwater discharges will have high N loads.[166]

(b) In contrast, young groundwater discharges are typically directly connected to surface water through run-off. Accordingly, PC1 should therefore be focused on managing the N load attached to surface run-off and source areas of young groundwater. Consequently, managing discharges during the short-term (2016-2026) is critical to ensure that water quality is maintained or improved (as necessary) to meet freshwater objectives.[167]

[165] Mr McKay, EIC para 25 and 48-49.

[166] Mr Williamson, EIC paras 12-27.

[167] Mr Williamson, EIC paras 28-36.

(c) While the long-term (2026-2096) freshwater objectives will remain important, they will be less critical than the short-term freshwater objectives.[168]

(d) The consequence of these findings is that actions will need to be put in place sufficiently early so that they can be implemented and N discharges can be managed before 2026 so that the short-term freshwater objectives are actually met.[169]

(e) Springs (as noted above) should be defined hydrologically to distinguish ephemeral from perennial springs.[170]

(f) Sub-catchment 66 should be subdivided into Sub-catchments 66A and 66B in conformance with fundamental catchment delineation principles. Boundary lines should therefore follow topographical ridgelines or flow divides.[171]

141.2 The use of the NRP as a universal guide to nitrogen control is likely to result in significant constraints both to future development and catchment health. The use of OVERSEER alone (as opposed to the use of other decision support tools) to calculate NRP is likely to present further constraints for integrated management. A spatial approach was not pursued due to information gaps noted by the CSG, but spatial variability should be considered as an important component of catchment management. These matters are fully addressed in the evidence of Dr Cresswell. In particular, Dr Cresswell found that:

(a) The CSG agreed that temporal and spatial variability were important as a pre-requisite for assessment but ultimately did not consider these factors.[172]

(b) The PC1 freshwater objectives do not consider up-stream inputs, and that whole-of-catchment loads (as resource limits) should be included in any assessment of down-stream nutrient loads.[173]

[168] Mr Williamson, EIC summary para 8.

[169] Mr Williamson, EIC para 49.

[170] Mr Williamson, EIC paras 37-41.

[171] Mr Williamson, EIC paras 42-44.

[172] Dr Cresswell, EIC paras 10-12.

[173] Dr Cresswell, EIC paras 13-16.

(c) The background reports assume common transport processes for all four contaminants across all sub-catchments, despite the fact that (as expected) they identified distinctly different pathways and timings for each of the contaminants. For example, N attenuation was acknowledged but was not ultimately considered in the reports.[174]

(d) Key indicator levels are used in PC1 for the four contaminants as a proxy for river health. Put simply, this assumes (simplistically) that reductions in these contaminants will improve the river condition. But causal and spatial variability are also important factors that should be included in any assessment of sub-catchment health and reflected in Table 3.11-1.[175]

(e) Generally, the use of steady-state, deterministic, models (e.g. OVERSEER) restricts the ability to predict the impact of future changes to farming practices, or to respond to changing climatic conditions or to the impacts of up-stream sources of nutrients to down-stream discharges.[176]

141.3 Generally, the process for determining the current state of surface water quality (PC1 Table 3.11-1) is unclear, including the selection of the data used, pre-processing steps and analysis, as the same results cannot be replicated from the data provided by WRC regarding all four contaminants at all locations. The application of lake attributes to all stretches of the main stem of the Waikato River is questionable (in particular, above Tutukau Bridge). The underlying assumptions are not known or are unclear in relation to the use of these attributes to set the improvements in surface water quality identified in Table 3.11-1. Similarly, it is unclear as to what investigations were used to test or apply the 80-year targets regarding Total Nitrogen to demonstrate that they could be achieved. The justification for the 75th percentile approach is also unclear. These matters are fully addressed in the evidence of Dr Neale and Mr McKay.[177] In particular, Dr Neale found that:

(a) Table 3.11-1 is conceptually sound and is required to implement PC1. But as notified there a numerous problems with its development and current iteration,

[174] Dr Cresswell, EIC paras 17-18.

[175] Dr Cresswell, EIC paras 29-34.

[176] Dr Cresswell, EIC paras 41-46.

[177] Mr McKay, EIC paras 31-34, 38-44, 50, and 60-61.

including (inter alia) the current state is inconsistent with the base estimates and its unclear how it was determined,[178] the 5-year period (2010-2014) to determine current state was unusually dry,[179] freshwater objectives are set below detection limits[180] and/or at unrealistic levels of precision,[181] medians are presented that are greater than maximum or 95th percentile values,[182] inconsistent sampling methods in all flow conditions are used (rather than baseflow sampling),[183] consistent NPS-FM terminology is not used,[184] and both short-term and long-term freshwater objectives (based on the Section 32 Report analysis) are questionable as a result of these concerns.[185]

(b) A number of expert witnesses have therefore suggested that a transparent and robust process is required to amend Table 3.11-1.[186]

(c) Sub-catchment 66 is partly lacustrine and riverine in character and that this should also inform the subdivision of Sub-catchment 66 should be subdivided into Sub-catchments 66A and 66B (in addition to the reasons given by Mr Williamson noted above).[187] For example, it is for note that above Tutukau Bridge upriver levels of Chlorophyll a are below the limit of detection.[188]

141.4 While algal dynamics appear to be driven by P discharges, the relative importance ascribed to N rather than P via the modelling process is unclear. The N bias appears to be unwarranted. Likewise it is unclear from the science reports as to what management tools should be used in relation to P,

[178] Dr Neale, EIC paras 44-60.

[179] Dr Neale, EIC paras 61-71.

[180] Dr Neale, EIC paras 75-78.

[181] Dr Neale, EIC paras 73-74.

[182] Dr Neale, EIC paras 81-86.

[183] Dr Neale, EIC paras 87-92.

[184] Dr Neale, EIC paras 24-28.

[185] Dr Neale, EIC para 93.

[186] Dr Neale, RE paras 4-5, 6, and 8. WPL welcomes the directions made by the Commissioners for expert witness conferencing regarding Table 3.11-1, given its vital role as one of the twin engines that will drive the implementation of PC1.

[187] Dr Neale, EIC paras 29-35.

[188] Dr Neale, EIC para 78.

or where these tools are reflected in PC1. Beyond that, the relationship between the desired surface water quality improvements and the sub-catchment priorities set by PC1 is also unclear. For example, it is unlikely in terms of restoration that the 1863 chlorophyll values can be achieved; there is uncertainty around the assumptions made in the use of the CLUES model; while in relation to E.coli it is difficult to determine how the relevant values were chosen when three models and five land use classifications were used but adjustments were made for soil type and rainfall. Additionally, the CLUES model may be too simplistic for land use planning (e.g. it is not the only tool available for this purpose, or necessarily the best tool that could be used for limit setting given the significant seasonal and inter-annular effects that can be observed from available monitoring data). These matters are fully addressed in the evidence of Dr Jordan and Mr McKay.[189] In particular, Dr Jordan found that:

(a) The water quality modelling that underpins the Section 32 Report does not accurately capture the temporal and spatial variability of groundwater dynamics.[190]

(b) In particular, the use of the CLUES model introduces considerable uncertainty.[191]

(c) The use of the 5-year dry period (2010-2014) to calculate current state statistics is likely to produce biased results, and under estimates contaminant concentrations. Consequently, the long-term (2096) freshwater objectives (Objective 1) may not be met at some locations.[192]

(d) The 74 sub-catchments were (in practice) delineated by the limitations in the modelling approach and method of analysis adopted, rather than sound hydrological principles.[193]

Relative importance of N versus P

141.5 Both Drs Neale and Jordan address the relative importance of N versus P in their evidence. They consider that the particular management focus on N alone in PC1 is inappropriate based on the nutrient-algal relationships in the

[189] Mr McKay, EIC paras 23-24, 27-30, 35-37, 47-48, and 54-57.

[190] Dr Jordan, EIC paras 8-11.

[191] Dr Jordan, EIC paras 12-32.

[192] Dr Jordan, EIC paras 14-18.

[193] Dr Jordan, EIC paras 37-39.

Waikato River, because algal levels are most affected by P.[194] They consider that TP should be managed to limit resource use so that the freshwater objectives in Table 3.11-1 (to be revised by expert witness conferencing) can be met. They do not however suggest that N should be excluded from the mix of contaminants regulated under PC1. Instead, they emphasise the importance of managing both TN and TP.

Economic modelling

141.6 The reasons for focusing (primarily) on maintaining the status quo are unclear and it is difficult to determine exactly what part the HWRO economic model had in influencing PC1 as notified. The analysis of regulatory advantages appears to be limited. Similarly, risk analysis, and analysis of environmental and societal costs and benefits appears to be (very) limited. Likewise, there appears to be an undue focus on the negative economic growth and employment opportunities to the exclusion of other aspects of the s 32 analysis. For example, it is unclear how the economic efficiency of the 75th percentile approach has been tested, and what environmental improvements are anticipated (by the economic modelling) during the plan period (2016-2026). Beyond that, no (real) consideration appears to have been given to off-setting land uses in terms of allowing land use change to be carried out absent any adverse effects. These matters are fully addressed in the evidence of Mr Ford[195] and Mr McKay.[196] In particular, Mr Ford found that the scenario modelling was not robust because:

(a) All four scenarios identified in the HRWO background reports that underpin the PC1 objectives were not tested (only Scenario 1 was tested in the second modelling round);[197] and

(b) The scenario modelling results influenced the selection of the straight-line pathway that underpins the long-term (2096) objective notwithstanding the fact that the economic effect of this policy choice has not been tested.[198]

[194] Dr Neale, EIC paras 16-23; Dr Jordan, EIC paras 33-36.

[195] Mr Ford, EIC paras 41-86.

[196] Mr McKay, EIC paras 62-66.

[197] Mr Ford, EIC paras 79-80.

[198] Mr Ford, EIC paras 93-98.

142 Overall, the review of the background documents by the WPL experts reveals that a number of the documents do not appear to be relevant in the context of PC1 as notified, either because they have no relationship with the notified provisions, or do not support the PC1 notified provisions or how the provisions could be amended to make them workable. It is therefore important to sort out the wheat from the chaff and to focus on only those background documents (as referenced by the WPL witnesses in their evidence) that have direct relevance to the notified provisions or how they could appropriately be amended. The concerns recorded by the experts for WPL regarding some of the background documents may also have implications for the level of confidence that can be ascribed to some of the background work.

WPL modelling

143 The science and economic experts for WPL considered that the uncertainty with reliance on the OVERSEER model alone (noted above) could be resolved by crosschecking against a process based model.

144 The WPL science and economic experts have therefore been engaged collectively in a collaborative way in developing and reviewing the Ruahuwai decision support tool (**RDST**)[199] that (inter alia) uses the OVERSEER model in conjunction with other appropriate predictive models (e.g. APSIM). Where both OVERSEER and other appropriate predictive models are used in conjunction within a decision support tool framework they are capable of providing a better precautionary approach than could be achieved by reliance on OVERSEER alone. The RDST has been presented to WRC Officers and revised in light of the feedback received. The updated version of the RDST should be available for disclosure (for the purposes of expert witness conferencing) to the science experts retained by other submitters three working days in advance of Forum 4 on Sub-catchment Planning (Alternative Approaches) that is timetabled to start on 2 May 2019.

TOPIC B4. OBJECTIVES

145 As noted above, the Objectives in PC1 are required by s 32(1)(a) of the RMA to be the “most appropriate” way to achieve the statutory purpose of the RMA. They should be “suitable” for this purpose.

[199] Decision support tools provide an information and accounting framework that can be used to assist with analysis and decision-making processes within an enterprise (or property) that supports the management of diffuse contaminant discharges at sub-catchment scale.

Objective 1

146 WPL made submissions on Objective 1 (long-term restoration and protection of water quality in all sub-catchments and FMUs) broadly requesting that a consistent approach should be adopted in transposing the requirements of the NPS-FM and the Vision and Strategy regarding the "maintenance" or "improvement", or the "protection" or "restoration" of water bodies.

147 WPL also made submissions on the principal reasons for adopting Objective 1, and made further submissions on Objective 1 generally opposing the decisions requested by other submitters.

148 Objective 1 (together with Objective 3) is a key provision in PC1 for implementing the freshwater objectives in Table 3.11-1. However, as notified it does not recognise that there are parts of the Waikato and Waipa River catchments where existing water quality is high (e.g. the Upper Waikato River FMU sub-catchments). In these sub-catchments, the objective should be to maintain such water quality consistent with the Vision and Strategy. WPL therefore requested that amendments should be made to this objective to clarify that the approach taken under PC1 should reflect the water quality found in each sub-catchment. WPL also considered that the second part of the objective should be amended to clarify that it is the management of discharges that will achieve the outcomes sought.

149 These amendments were designed provide a greater level of certainty for the ongoing management of the Waikato and Waipa River Catchments where the requirements for each sub-catchment are tailored to meet the freshwater objectives. Put simply, PC1 should provide for the spatial variability that exists between sub-catchments.

150 Accordingly, WPL requested that Objective 1 should be amended by inserting the words coloured red, namely:

> Objective 1: Long-term maintenance, restoration and/or protection of water quality as relevant 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, the management of discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water result in achievement of the restoration and protection of the 80-year water quality attribute targets in Table 3.11-1.[200]

[200] WPL PC1-11261.

Principal reasons for adopting Objective 1

151 WPL also made submissions on Var1 regarding the principal reasons for adopting Objective 1. It generally supported the amendment to the reasons for adopting Objective 1 made by Var1, but noted that all six objectives will not apply in every case. WPL considered that the reasons should be amended further to clarify (for the avoidance of doubt) that the objectives should only apply where they are relevant in the context of particular resource consent applications.

152 Accordingly, WPL requested that the principal reasons for adopting Objective 1 (as amended by Var1) should be further amended by inserting the words (coloured blue) at the end of the statement of reasons:

> **Reasons for adopting Objective 1**
>
> …
>
> While all objectives are potentially relevant, individual objectives will only apply where they are relevant in the context of specific resource consent applications. All six objectives will not apply in every case.[201]

Section 42A Report recommendations

153 The Section 42A Report recommends that these amendments should be rejected. The report notes that:

> Several submitters seek that there be provision for water quality to be maintained where water objectives are being met. The objective provides for the protection of existing water quality where water objectives are being met, which is consistent with the terminology used in the Vision and Strategy, whereas "maintain" is consistent with the wording used in the NPS-FM. The WRC is required to "give effect to" the Vision and Strategy, and is also required to prepare and change any regional plan in accordance with any national policy statement. It is the Officers' view that amending Objective 1 to refer to the maintenance of water quality does not improve the policy or change the outcomes sought by PC1. It is not recommended these submissions be adopted.[202]

154 Five observations can be made about the Officers' conclusions:

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[201] V1PC1-648.

[202] Section 42A Report, 58 para 334.

154.1 The meanings of the words “maintain” or “protect” are broadly similar, as are the meanings of the words “improve” or “restore” (Oxford English Dictionary).

154.2 Absent any “inconsistency” between the NPS-FM and the Vision and Strategy, the NPS-FM will normally prevail.

154.3 Regardless of which formulation of words is used, a consistent approach should be adopted to using either “maintain or improve” or “protect or restore” throughout PC1.

154.4 Ensuring that both requirements (either “maintain or improve” or “protect or restore”) are used in the objectives and related policies is critically important for providing a clear and coherent regulatory framework for the methods and rules because:

(a) There is clearly spatial variation in terms of current or existing freshwater quality across the FMUs and 74 sub-catchments; and

(b) Regulators will need to be able distinguish on a case by case basis whether there is a duty to “maintain or improve” or “protect or restore” freshwater quality in the context of site specific individual resource consent applications against the background of the freshwater objectives in Table 3.11-1.

154.5 More importantly, key amendments were made to the NPS-FM in 2017 (as noted above) to clarify when the requirement to “improve” freshwater quality should apply. These amendments underscore the need to ensure that the twin requirements to “maintain or improve” or “protect or restore” are used consistently throughout PC1. Absent any identified inconsistency the terminology in the NPS-FM should (preferably) be used.

155 Beyond that, it is for note that the recommendations in the Section 42A Report to delete all headings and reasons for adopting the objectives will result in there being no express reference whatsoever in the amended Objective 1 to the requirements to “maintain or improve” or “protect or restore” freshwater quality. Objective 1 as amended by the Report does not therefore give effect to the NPS-FM or the Vision and Strategy.

156 Mr McKay therefore recommends that Objective 1 should be amended to read as follows:

Strikethrough version

> ~~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 Waipa Rivers, such that of the~~ The 80-year ~~water quality~~ freshwater ~~attribute targets states in~~ objectives from Table 3.11-1 are met~~.~~ by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments by 2096.
>
> Clean version
>
> The 80-year water quality objectives from Table 3.11-1 are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments by 2096.

157 These matters are fully addressed in the evidence of Dr Neale,[203] Mr Ford,[204] and Mr McKay.[205]

Objective 2

158 WPL made submissions on Objective 2 (long-term social, economic and cultural well-being). It also made further submissions on Objective 2 generally opposing the decisions sought by other persons.

159 WPL considers that there is a need to strengthen Objective 2 to ensure that the importance of the social and economic wellbeing of the community is recognized, and that the economic benefits experienced are measurable. This is consistent with Objective 2.5.2(j) in the Vision and Strategy, and it is important to ensure the community is not burdened with costs that it cannot sustain (e.g. as a result of unnecessary land use change restrictions). WPL also considered that this objective should be amended to be consistent with the amendments requested regarding Objective 1, for the reasons given above.

160 Accordingly, WPL requested that Objective 2 should be amended by inserting the words coloured red:

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

[203] Dr Neale, EIC paras 24-28.

[204] Mr Ford EIC, para 87.

[205] Mr McKay, EIC paras 83-90.

> Waikato and Waipa communities and their economy experience measurable benefits from the maintenance, restoration and/or protection as relevant of water quality in the Waikato River catchment, which enables the people and communities to continue to provide for their social, economic and cultural wellbeing.[206]

Section 42A Report recommendations

161 The Section 42A Report does not include any express reference to the WPL submissions but appears to recommend that the requested amendments to Objective 2 should be rejected.[207] Accordingly, WPL maintains the substance of these submissions.

162 Mr McKay therefore recommended in his evidence that Objective 2 should be amended as follows:

> Strikethrough version
>
> Waikato and Waipa communities and their economy benefit from the ~~restoration and protection~~ maintenance or improvement of water quality in the Waikato and Waipa River catchments and their sub-catchments, which enables the people and communities to continue to provide for their, social, economic and cultural wellbeing.
>
> Clean version
>
> Waikato and Waipa communities and their economy benefit from the maintenance or improvement of water quality in the Waikato and Waipa River catchments and their sub-catchments, which enables the people and communities to continue to provide for their, social, economic and cultural wellbeing.

163 However, after considering the planning evidence from other experts Mr McKay recommends in his rebuttal that his clean version of Objective 2 should be revised as follows:

> Clean version with further strikethrough
>
> Waikato and Waipa communities and their economy benefit from the maintenance or improvement of water quality in the Waikato and Waipa River~~s'~~ ~~sub-~~catchments and their sub-catchments, ~~which~~ and is undertaken in a way and at a rate

[206] WPL PC1-11262.

[207] Section 42A Report, 64 para 368.

> that enables the people and communities to continue to provide for their social, economic and cultural wellbeing.

164 These matters are fully addressed in the evidence of Mr McKay.[208]

Objective 3

165 WPL made submissions on Objective 3 (short-term improvements in water quality during 2016-2026 in all sub-catchments and FMUs). It also made further submissions on Objective 3 generally opposing the decisions sought by other persons.

166 WPL also made submissions (addressed below) on the principal reasons for adopting Objective 3.

167 It considered that Objective 3 as notified is not consistent with providing for the continued operation and development of regionally significant primary production activities as required by WRPS Policy 4.4. For example, the overall effects on the environment (including water quality) of providing for regionally significant primary production activities can be satisfactorily avoided, remedied or mitigated within each sub-catchment or collectively in each FMU. Greater definition is also required to ensure that 10% of the required change from current water quality towards achieving the 80-year freshwater objectives is an *overall* improvement, and not necessarily a 10% improvement in relation to each freshwater objective.

168 The management of the Waikato and Waipa River Catchments will require specific reporting to track the performance of each sub-catchment to reach the freshwater objectives. Initially some of the improvements sought may only be observed at an FMU scale as biophysical systems respond to property, enterprise and sub-catchment level actions.

169 Accordingly, WPL requested that Objective 3 (second paragraph) should be amended by inserting the words coloured red:

> Actions put in place and implemented by 2026 to reduce discharges of nitrogen, phosphorus, sediment and microbial pathogens, are sufficient to achieve an overall 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 within each sub-catchment.[209]

[208] Mr McKay, EIC paras 91-96.

[209] WPL PC1-11265.

Principal reasons for adopting Objective 3

170 WPL also made submissions regarding the principal reasons for adopting the Objectives in Section 3.11.2 of PC1.[210]

171 PC1 provides generally for a sub-catchment based approach to the risk assessment of contaminant discharges associated with farming activities and commercial vegetable production as a "cost-effective" mitigation measure designed to achieve the Vision and Strategy over an 80-year timeframe. Objectives 1 and 3 seek to achieve long-term and short-term contaminant reductions in order to maintain or improve (as necessary) freshwater quality in each sub-catchment.

172 Likewise, Policies 1 and 2 expressly refer to managing and reducing "sub-catchment-wide" diffuse discharges. Methods 3.11.4.5(a) and (b) and 3.11.4.7(b)(i) and (ii) also expressly refer to sub-catchment scale planning and information gathering. Policy 7, and Methods 3.11.4.7(a) and 3.11.4.8(b) expressly refer to allocating diffuse discharges, gathering information and scientific data to support diffuse discharge allocation, and managing diffuse discharges to meet the freshwater objectives in Objective 1 at an "enterprise-level". PC1 is also replete with references to "sub-catchment",[211] and "enterprise".[212]

173 The definition of "sub-catchment" in the Glossary of Terms defines sub-catchments by reference to Map 3.11-2 and, more importantly, clarifies that sub-catchments are "used as the basic spatial unit for analysis or modelling".

174 However, notwithstanding this general sub-catchment approach, PC1 does not (as notified) include a consistent suite of policies and methods (including rules) that are designed to achieve and implement this strategic direction. Likewise, notwithstanding the ability for an enterprise to manage diffuse discharges across land in multiple-ownership, PC1 does not (as notified) include a consistent suite of policies and methods that are designed to achieve and implement this strategic direction.

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[210] WPL PC1-11268.

[211] See: Objectives 1 and 2; Reasons for adopting Objective 6; Policies 1, 2, 3, 4, 8, 9, 11 and 15; Implementation methods 3.11.4.5, 3.11.4.7, 3.11.4.9, 3.11.4.10 and 3.11.4.11; Rules 3.11.5.3, 3.11.5.4 and 3.11.5.5; Schedule B; Schedule C; Schedule 1; Table 3.11-2; Maps 3.11-1 and 3.11-2; and the definitions of "enterprise", "property" and "sub-catchment" in the Glossary of Terms.

[212] See: Policies 2, 3, 7 and 9; Implementation methods 3.11.4.5 and 3.11.4.8; Rules 3.11.5.1, 3.11.5.2, 3.11.5.3, 3.11.5.4, 3.11.5.5 and 3.11.5.7; Schedule B; Schedule C; Schedule 1; Table 3.11-2; and the definitions of "75th percentile nitrogen leaching value", "enterprise" and "Good Management Practice" in the Glossary of Terms.

175 These are significant omissions, and they will impede the cost-effective management and reduction of diffuse discharges. Accordingly, the WPL submissions requested a series of carefully crafted amendments to PC1 designed to encourage collaboration between multiple owners to establish enterprises to manage and reduce diffuse discharges at enterprise level or scale, and where practicable at sub-catchment level or scale. These amendments are consistent with the Section 32 Report. Relying on future plan changes to deliver such outcomes would be overly constraining and would not promote sustainable management.

176 WPL also considered that paragraph two of the reasons for adopting Objective 3 should be amended to clarify that the consequential amendments made to the WRP by PC1 now define farming related discharges in other sections of the WRP as point source discharges while retaining the permitted activity status for these activities.

177 WPL generally supports Objectives 1 and 3 for introducing a clear framework of freshwater objectives (that are consistent with an adaptive management approach) to deliver the Vision and Strategy for maintaining or, where necessary, improving the health of the Waikato and Waipa Rivers. WPL believes the use of unambiguous freshwater objectives increases certainty and confidence for sub-catchment management.

178 Accordingly, WPL requested that PC1 should be amended by inserting the words coloured red in paragraph two of the reasons for adopting Objective 3:

> **Reasons for adopting Objective 3**
>
> …
>
> Point source discharges are currently managed through permitted activity rules and 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 (where relevant), guided by the targets and time limits set in Objective 1.[213]

Section 42A Report recommendations

179 The Section 42A Report appears to recommend (by exception) that these submissions should be rejected.[214] In particular, the Report states:

[213] WPL PC1-11270.

[214] Section 42A Report, 69 para 400.

> Some submitters identify that some catchments already meet the limits set in Table 3.11-1. The Officers acknowledge that Objective 3 is not specific in stating that maintaining or protecting current (good) water quality is an appropriate or desirable outcome for these sub-catchments. However, it is important to acknowledge the cumulative impacts of land use (sic) of water quality, where small contributions in multiple sub-catchments can cumulatively result in exceedances in water objectives in the wider catchment. As such, there is a need for all landowners to improve land use practices, regardless of whether their immediate sub-catchment is meeting water quality limits, to ensure that the targets are achieved at a wider catchment scale. It is not recommended that these submissions be adopted, as the objective needs to maintain direction for **all landowners to take action to improve water quality** so that all short-term targets are met. (Emphasis added)[215]

180 However, this analysis confuses two different concepts. The situations when the requirement to "improve" freshwater quality will apply have been clarified by the 2017 amendments to the NPS-FM noted above. Accordingly, it is relevant that PC1 should take account of spatial variability across FMUs and the 74 sub-catchments, and that the requirement to "improve" or "restore" freshwater quality should only be applied where the freshwater objectives in Table 3.11-1 are not met. Separate from how this requirement should operate, there will be a continuing obligation for properties and enterprises to improve land use practices in accordance with GMP when preparing or updating FEPs.

181 Consequential amendments should (as noted above regarding Objective 1) therefore be made to Objective 3 to ensure that the NPS-FM and Vision and Strategy requirements to "maintain or improve" or "protect or restore" freshwater quality are consistently referenced through PC1.

182 More importantly, it is for note that the policies, methods, and rules in PC1 as notified are unlikely to achieve Objective 3 which requires that actions are both "put in place" and "implemented" by 2026 to reduce (inter alia) diffuse contaminant discharges from farming activities to meet the short-term freshwater objectives in Table 3.11-1. For example, the Section 42A Report notes that:

> Given the staged nature of the development of FEPs across the sub-catchments over the 10-year period, a pragmatic assumption for modelling was that implementation of the required farm plan actions would also be staged, with 100 per cent implementation of actions in Priority 1 sub-catchments, 50 per cent in Priority 2 sub-catchments, and 25

[215] Section 42A Report, 68 para 392.

per cent in Priority 3 sub-catchments by the end of the 10-year period.[216]

183 In other words, WRC assumes that by 1 July 2026 actions are unlikely to have been put in place or implemented in 75% or more of the 18 (notified) or 15 (recommended) Priority 3 Sub-catchments. In particular, it is for note that under Rule 3.11.5.4 as amended by Var1:

183.1 In Priority 1 Sub-catchments resource consent is not required for farming activities until 1 March 2022, and FEPs are also not required until 1 March 2022.

183.2 In Priority 2 Sub-catchments resource consent is not required for farming activities until 1 March 2024, and FEPs are not required until 1 March 2025.

183.3 In Priority 3 Sub-catchments resource consent is not required for farming activities until 1 January 2026, and FEPs are not required until 1 July 2026.

184 It is unclear whether the modelling assumptions about the implementation of FEPs have been revised since the Var1 amendments were made to Rule 3.11.5.4. But it must now be increasingly likely that FEPs will either not be in place or not be implemented in the Priority 2 and (certainly) the Priority 3 Sub-catchments in such a way as to achieve the short-term freshwater objectives in Table 3.11-1.

185 Therefore, as noted above, it is unlikely that Objective 3 will be achieved by 1 July 2026. This issue foreshadows the need to amend the policies, methods, and rules in PC1 to enable properties and enterprises to apply for resource consent early so as to enable landowners to implement FEPs sooner rather than later and (actually) achieve the requirements in Objective 3 and Table 3.11-1.

186 Beyond that, the Section 42A Report also calls into question the inclusion of the principal reasons for adopting the Objectives in PC1 and notes that:

> While this approach is consistent with the style used in the remainder of the WRP, the inclusion of reasons for the objectives is not a mandatory requirement under Section 67(1) of the RMA. It is the Officers' position that the (sic) Principle Reasons for Adopting the Objectives be deleted and any key points from the Reasons should be extracted and included within the body of the objectives, so they better

[216] Section 42A Report, 123 para 635.

reflect best practice RMA plan drafting and to clarify the outcomes sought by PC1.[217]

187 The report therefore recommends that each of the reasons for adopting Objectives 1-6 should be deleted, but the amended text in the recommendations does not (really) extract or reflect any of the key points from the deleted reasons in the amended Objectives or address the submissions made by WPL on the (now) deleted reasons in any way.

188 While the inclusion of reasons for adopting objectives may now be optional under the RMA, it is for note that PC1 inserts a new chapter into an existing operative plan that already includes reasons for adopting all of the operative objectives. It is also the case that under s 67(4) of the RMA, PC1 should not be inconsistent with any other regional planning document for the Waikato region (including the operative WRP).

189 Mr McKay has taken account of these matters in his expert planning evidence. On balance, he considers that it may be appropriate to reflect modern plan drafting practice in PC1 - provided that appropriate amendments are made to the Objectives to reflect the WPL submissions points made in relation to both the Objectives themselves and the (now) deleted principal reasons for adopting them. Overall, Mr McKay considers that his drafting approach clarifies and simplifies the Objectives for plan readers, and that his approach will also assist in drafting appropriate amendments to the other PC1 provisions that will be considered in relation to the Block 2 Hearing Topics.

190 Accordingly, Mr McKay recommends that Objective 3 should be amended to read as follows:

Strikethrough version

~~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~~ The short-term ~~water quality~~ freshwater ~~attribute states in~~ objectives from Table 3.11-1~~. ten per cent of the required change between current water quality and the 80-year water quality attribute targets in Table 3.11-1. A ten per cent change towards the long-term water quality improvements is indicated by the short-term water quality attribute targets in Table 3.11-1.~~ are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments by 2026.

[217] Section 42A Report, 54 para 313.

Clean version

> The short-term water quality objectives from Table 3.11-1 are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments by 2026.

191 These matters are fully addressed in the evidence of Dr Neale,[218] Mr Ford,[219] and Mr McKay.[220]

Objective 4

192 WPL made submissions on Objective 4 (people and community resilience), and on the principal reasons for adopting Objective 4.

193 It also made further submissions on Objective 4 generally opposing the decisions sought by other submitters.

194 WPL supports the adaptive management approach proposed in Objective 4 as notified, but considers that adaptive management approaches will also be relevant in the long-term and should not be limited to applying only in the short-term.

195 Accordingly, WPL requested that Objective 4 (first paragraph) should be amended by deleting the words coloured red:

> 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:[221]

Principal reasons for adopting Objective 4

196 WPL also requested that the principal reasons for adopting Objective 4 should be amended (for the same reasons as noted above in relation to Objective 3) by inserting a new final paragraph (words coloured red):

[218] Dr Neale, EIC paras 24-28.

[219] Mr Ford, EIC para 89.

[220] Mr McKay, EIC paras 97-105.

[221] WPL PC1-11266.

Reasons for adopting Objective 4

…

Encouraging enterprises to apply for sub-catchment management resource consent applications for farming activities and commercial vegetable production, associated diffuse discharges, and land use change, will provide a key method (alongside participation in any relevant Certified Industry Schemes) for achieving clear and enduring improvements in water quality.[222]

197 These amendments were designed to ensure that PC1 provides for a consistent approach to planning and consenting at property, enterprise, and sub-catchment levels.

198 WPL also made submissions on Var1 reiterating the need to amend the principal reasons for adopting Objective 4 in order to emphasise the importance of adaptive management in implementing PC1.

199 Accordingly, WPL requested that the principal reasons for adopting Objective 4 as amended by Var1 should be further amended by inserting the following words (coloured blue) at the end of the reasons for adopting Objective 4:

Reasons for adopting Objective 4

…

While adaptive management approaches will be relevant during the short-term, they will also remain equally relevant during the long-term for achieving anticipated environmental outcomes. Accordingly, Objective 4 speaks both to the current plan period and to the future beyond that, and is therefore not limited temporally by reference to a specific time period only. Effectively, the short-term should merge seamlessly with the long-term and adaptive management approaches should (where relevant) be used throughout.[223]

Section 42A Report recommendations

200 The Section 42A Report appears to recommend (by exception) that these submissions should be rejected.[224] In particular, the report notes that:

[222] WPL PC1-11271.

[223] V1PC1-649.

[224] Section 42A Report, 74 para 423.

> The regime set out in PC1 to reduce contaminant losses does not align with the common understanding of "adaptive management". While the Officers agree that the words "adaptive management" are better represented by "implement management responses" the recommended amendments described in the previous paragraph above have resulted in this being removed from the Objective.[225]

201 References to adaptive management have therefore been removed from Objective 4.

202 However, this response to the WPL submissions is not consistent with the Vision and Strategy that (as noted above) expressly adopts the precautionary principle in the context of managing freshwater resources.[226] More importantly, this conclusion does not accord with settled New Zealand law that (in turn) recognises that the precautionary principle is an accepted method for addressing environmental risk, and that it is typically implemented by adaptive management approaches.[227]

The precautionary principle and adaptive management

203 Internationally, Principle 15 of the Rio Declaration provides that the precautionary principle applies in the context:

> Where there are threats of serious irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.[228]

204 In the context of PC1, the precautionary principle is embedded in the relevant statutory provisions. For example:

204.1 The function of WRC under s 30(1)(b) of the RMA to prepare objectives and policies in relation to any actual or potential effects arising from the use, development, or protection of land.

[225] Section 42A Report, 73-74 para 420.

[226] Settlement Act, Sch 2, cl 1(3)(f); WRPS, Objective 2.5.2(f).

[227] New Zealand Coastal Policy Statement 2010, Policy 3; RMA, s 3(f); *McIntyre v Christchurch City Council* [1996] NZRMA 289 at 305; *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66 at 134; and *Sustain Our Sounds Inc v New Zealand King Salmon Co Ltd* [2014] NZSC 40 at [100]-[140].

[228] Rio Declaration on Environment and Development, June 1992, Principle 15.

204.2 The inclusion of potential effects of low probability that may have a high potential impact in the definition of "effects" in s 3(f) of the RMA.

204.3 The requirement to undertake an assessment under s 32(2)(c) of the RMA of the risk of acting or not acting if there is uncertainty or insufficient information and the related obligation when undertaking that assessment to identify the risk, probability, and consequences of any harm arising.[229]

204.4 The inclusion of the precautionary principle in policy statements and plans such as Objective 2.5.2(f) in the Vision and Strategy for the Waikato River included in the WRPS that provides:

> The adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River, and in particular, those effects that threaten serious or irreversible damage to the Waikato River.

204.5 The commentary in the Guidance Note to Policy 3 of the NZCPS that appears to be generally relevant states:

> The application of the precautionary approach is a risk management rather than a risk assessment approach. It is when the risk of potential significant adverse or irreversible environmental effects cannot be adequately assessed (because of uncertainty about the nature and consequences of human activities or other processes) that a precautionary approach to risk management becomes appropriate.[230]

205 While differing views about the application of the precautionary principle have been expressed by the Environment Court in resource consent application decisions,[231] it is for note that more recent decisions have confirmed the relevance of the precautionary

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[229] *Clifford Bay Marine Farms Ltd v Marlborough District Council*, C131/2003 at [68]; *Long Bay-Okura Great Park Society Inc v North Shore City Council*, A078/2008 at [46].

[230] Department of Conservation, Guidance Note to Policy 3 of the New Zealand Coastal Policy Statement 2010.

[231] *McIntyre v Christchurch City Council* [1996] NZRMA 289; *Telecom New Zealand Ltd v Christchurch City Council*, W16/96; *Aquamarine Ltd v Southland Regional Council*, C126/97; *Wratten v Tasman District Council*, W8/98; *Rotorua Bore Users Association Inc v Bay of Plenty Regional Council*, A138/98; *Shirley Primary School v Telecom Mobile Communications Ltd* [1999] NZRMA 66.

principle in relation to consent applications.[232] More importantly, in relation to PC1 the Court in *Golden Bay Marine Farmers v Tasman District Council* emphasised the important role played by the precautionary principle in the plan preparation process in relation to:[233]

205.1 Assessing evidence about environmental effects, particularly, the effects of potential activities of low probability but high potential impact under s 3(f) of the RMA.

205.2 Whether the principle should be "inbuilt" into policy statement or plan provisions (e.g. Objective 2.5.2(f) in the Vision and Strategy).

205.3 How activities should be classified in the proposed rules.

205.4 Whether a precautionary approach should be underpinned by management plan requirements (e.g. FEPs under PC1 Schedule 1).

206 Additionally, guidance about when an adaptive management approach should "legitimately" be used to implement the precautionary principle was provided by the Supreme Court decision in *Sustain Our Sounds Inc v New Zealand King Salmon Co Ltd*.[234] The Court approached this question in a stepped way:

206.1 First, the Court posed the "threshold question" of whether an adaptive management regime could be considered, and found that:

> … there must be an adequate evidential foundation to have reasonable assurance that the adaptive management approach will achieve its goals of sufficiently reducing uncertainty and adequately managing any remaining risk.[235]

206.2 Second, the Court considered the question of "whether the precautionary approach requires an activity to be prohibited until further information is available, rather than an adaptive

[232] *Ngati Kahu Ki Whangaroa Co-operative Society Ltd v Northland Regional Council* [2001] NZRMA 299; *Golden Bay Marine Farmers v Tasman District Council*, W42/2001; *Clifford Bay Marine Farms Ltd v Marlborough District Council*, C131/2003; *Crest Energy Kaipara Ltd v Northland Regional Council*, A132/2009; *Lower Waitaki Management Society Inc v Canterbury Regional Council*, C080/2009.

[233] *Golden Bay Marine Farmers v Tasman District Council*, W42/2001 at 76-77.

[234] *Sustain Our Sounds Inc v New Zealand King Salmon Co Ltd* [2014] NZSC 40.

[235] [2014] NZSC 40 at [125].

management or other approach".[236] The Court found that the answer to this question required an assessment of the following factors, namely:

(a) the extent of the environmental risk (including the gravity of the consequences if the risk is realised);

(b) the importance of the activity (which could in some circumstances be an activity it is hoped will protect the environment);

(c) the degree of uncertainty; and

(d) the extent to which an adaptive management approach will sufficiently diminish the risk and the uncertainty.

206.3 After considering the above questions, the Court then assessed the four secondary questions. It found that question (a) was focused on current information and whether any risk was "unlikely" to arise.[237] Question (b) was focused on the importance of the activity for people and communities based on policy statement provisions.[238] Question (c) was focused on the available modelling and whether the results had "reduced the uncertainty somewhat".[239] Question (d) focused on the ability of the adaptive management regime to deal with risk and uncertainty.[240]

206.4 Relevant to question (d) the Court found that four other specific factors should be considered, namely, whether:[241]

(a) there will be good baseline information about the receiving environment;

(b) the conditions provide for an effective monitoring of adverse effects using appropriate indicators;

(c) thresholds are set to trigger remedial action before the effects become overly damaging; and

[236] [2014] NZSC 40 at [129].

[237] [2014] NZSC 40 at [130].

[238] [2014] NZSC 40 at [131].

[239] [2014] NZSC 40 at [132].

[240] [2014] NZSC 40 at [133].

[241] [2014] NZSC 40 at [133].

(d) effects that might arise can be remedied before they become irreversible.

206.5 The Court then assessed these four additional factors and found that "sufficient" baseline information should be available;[242] that consent conditions should provide for effective monitoring and that appropriate thresholds should be set;[243] that any significant (adverse) changes to the state of the environment should result in "remedial action";[244] and that:

> … whether risk and uncertainty will be diminished sufficiently for an adaptive management regime to be consistent with a precautionary approach will depend on the extent of risk and uncertainty remaining and the gravity of the consequences if the risk is realised. For example, a small remaining risk of annihilation of an endangered species may mean an adaptive management approach is unavailable. A larger risk of consequences of less gravity may leave room for an adaptive management approach.[245]

207 The combined effect of the decision in *Sustain Our Sounds* regarding the precautionary principle and adaptive management has led learned commentators to observe that local authorities will (in cases where there is uncertainty) essentially be faced with a decision that proposed activities should either "be avoided until sufficient information is available as to the likely adverse effects" or should be allowed "subject to an adaptive management approach".[246]

208 In this case it is for note that PC1 includes a series of rules that allow farming activities to continue subject to (inter alia) the preparation of FEPs that include:

208.1 A risk assessment of the associated diffuse discharge of sediment, N, P, and microbial pathogens; and

208.2 A description of the actions, timeframes, and measures to ensure that N discharges do not exceed the NRP for the

[242] [2014] NZSC 40 at [135].

[243] [2014] NZSC 40 at [136].

[244] [2014] NZSC 40 at [137].

[245] [2014] NZSC 40 at [138].

[246] Derek Nolan (ed), *Environmental and Resource Management Law* (6th edn LexisNexis 2018), 1240.

property or enterprise, "unless other suitable mitigations are specified" in the FEP.[247]

209 These provisions in Schedule 1 of PC1 clearly provide a "reasonable assurance" that the freshwater objectives in Table 3.11-1 can be achieved. Based on current information WRC has determined that it is appropriate to provide for farming activities to continue as permitted, controlled, and restricted discretionary activities. The importance of farming activities for the people and communities in the Waikato region is recognized by Policy 4.4 in the WRPS as being regionally significant. There is a range of models available (e.g. APSIM) to reduce uncertainty about risk predictions. There is good baseline information available about the receiving environment in most sub-catchments (particularly the Upper Waikato River FMU). Monitoring sites are already in situ in these sub-catchments. Thresholds have been set via Table 3.11-1 (and the range and accuracy of them should be improved by expert witness conferencing). Remedial mechanisms are also in place under the RMA should there be any failure to comply with the freshwater objectives in Table 3.11-1.

210 Essentially, an adaptive management approach is embedded in PC1. This is not surprising given that PC1 is required to give effect to the WRPS including the precautionary approach in Objective 2.5.2(f) of the Vision and Strategy.

Recommendations for amendment of Objective 4

211 Accordingly, Mr McKay recommends that Objective 4 should be amended to read as follows:

Strikethrough version

A staged approach to ~~reducing contaminant losses~~ change will be provided for via policies, methods, and rules that 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~~ the short term and 80 year freshwater objectives from Table 3.11-1 are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments; and
b. recognising that further contaminant reductions will be required within some sub-catchments by subsequent regional plans ~~and signalling anticipated future~~

[247] PC1, Rules 3.11.5.4 and 3.11.5.6; and Schedule 1, paras 2 and 5.

~~management approaches that will be needed~~ ~~in order~~ and signalling anticipated future management approaches that will be needed to meet Objective 1.

Clean version

A staged approach to change will be provided via policies, methods, and rules that enable people and communities to undertake adaptive management to continue to provide for their social, economic and cultural wellbeing while:

a. The Short Term and 80 year water quality objectives from Table 3.11-1 are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments; and

b. Recognising that further contaminant reductions will be required within in some sub-catchments by subsequent regional plans and signalling anticipated future management approaches that will be needed to meet Objective 1.

212 These matters are fully addressed in the evidence of Mr Ford[248] and Mr McKay.[249]

213 Beyond that, WPL reserves the right to address the approach to sub-catchment planning (raised (inter alia) in the amendments sought to the reasons for adopting Objective 4) subsequently when this matter is considered later in the Hearing process as part of the Block 3 Hearing Topics.

Objective 5

214 WPL made submissions on Objective 5 (protecting and restoring tangata whenua values). It generally supports this objective and requested that Objective 5 should either be retained as notified, or amended by wording to like effect.

215 WPL did not make any further submissions regarding this objective.

216 Objective 5 is important to give effect to Objectives 2.5.2(b), (c), and (m) of the Vision and Strategy.

[248] Mr Ford, EIC para 88.

[249] Mr McKay, EIC 106-117.

Section 42A Report recommendations

217 The Section 42A Report appears to recommend (by exception) that the WPL submissions should be rejected.[250] However, the analysis in the report is confused about whether Objective 5 should merely relate to tangata whenua ancestral lands or Treaty settlement land or both.[251] However, from the (now deleted) principal reasons for adopting this objective it appears that Objective 5 was intended to relate to both tangata whenua ancestral lands and Treaty settlement land. This approach would be consistent with s 6(e) and s 8 of the RMA.

218 WPL therefore considers that Objective 5 could be retained as notified, or amended by similar wording to like effect,[252] but also notes that there should be ample scope (based on other submissions) to clarify the intent and wording of Objective 5 as illustrated by Mr McKay in his evidence:

> Strikethrough version
>
> Tangata whenua values are integrated into the co-management of the rivers and other water bodies within the catchment such that:
>
> a. tangata whenau 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 both tangata whenua ancestral lands and land returned via Treaty settlements are minimised; and
> c. improvements in the rivers' water quality and the exercise of kaitiakitanga increase the spiritual and physical wellbeing of the iwi and their tribal and cultural identity.

219 These matters are fully addressed in the evidence on Mr McKay.[253]

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[250] Section 42A Report, 79 para 442.

[251] Section 42A Report, 78 para 439.

[252] WPL PC1-11267.

[253] Mr McKay, EIC paras 118-123.

Objective 6

220 WPL made submissions on Var1 regarding the Whangamarino Wetland. It generally supports this objective and requested that Objective 6 should either be retained as notified, or amended by wording to like effect.

221 WPL did not make any further submissions regarding this objective.

222 Var1 amends PC1 by reinserting the withdrawn text regarding Objective 6 pertaining to the Whangamarino Wetland. This amendment is appropriate because it will provide added protection for this wetland of international importance that is listed under the Ramsar Convention 1971.

Principal reasons for adopting Objective 6

223 WPL also made the following submissions on Var1 regarding the principal reasons for adopting Objective 6:

223.1 The WPL PC1 submissions (see Appendix A, A7, page 15 of the PC1 submission) opposed the "short-term" emphasis of Objective 4 as originally notified, because it is considered that adaptive management approaches will be relevant in both the short-term and the long-term to deliver anticipated environmental outcomes. Objective 6a (as notified) also has a "short-term" emphasis.

223.2 Var1 also amended PC1 by reinserting the withdrawn text regarding the principal reasons for adopting Objective 6 pertaining to the Whangamarino Wetland. This amendment was considered to be appropriate because it provides added protection for this wetland of international importance that is listed under the Ramsar Convention 1971.

Section 42A Report recommendations

224 Wetlands play a vital role in providing a range of ecosystem services, for example, flood control, ground water recharge, and "the protection, purification, retention and provision of water resources for water and food supplies … on which the well-being of people and their livelihoods depend".[254] These ecosystem services align closely with the provisions of the Vision and Strategy and underscore the importance of retaining this objective.

[254] Ramsar COP Resolution IX.3 on Engagement of the Ramsar Convention on Wetlands in Ongoing Multilateral Processes Dealing with Water (Kampala, 2005), 1 para 3.

225 Beyond that, the *Guide to the National Policy Statement for Freshwater Management 2014* (as amended 2017) also notes that:

> Implementing the Freshwater NPS will be an important part of meeting the requirements of the Ramsar Convention (eg, through maintaining life-supporting capacity and setting freshwater objectives for the compulsory 'ecosystem health' value).[255]

226 WPL therefore seeks that Objective 6 as reinserted by Var1 should be retained as notified or amended to like effect.[256]

227 Mr McKay recommends that Objective 6 should be amended to read as follows:

> Strikethrough version
>
> ~~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~~ short term and 80 year freshwater objectives from Table 3.11-1 are met within the water entering the Whangamarino Wetland by 2026 and 2096 respectively.
>
> Clean version
>
> The short term and 80 year water quality objectives from Table 3.11-1 are met within the water entering the Whangamarino Wetland by 2026 and 2096 respectively.

228 These matters are fully addressed in the evidence of Mr McKay.[257]

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[255] Ministry for the Environment, *A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017)* (December 2017), 35.

[256] WPL V1PC1-460 and V1PC1-653.

[257] Mr McKay, EIC paras 124-126.

TOPIC B5. WATER OBJECTIVES AND LIMITS, FMUs, PRIORITY AREAS AND SUB-CATCHMENTS

Spatial extent of Chapter 3.11 and Freshwater Management Units

229 WPL made submissions on the Introduction to Chapter 3.11 and Map 3.11-1 of (inter alia) the Waikato River catchment showing the FMUs.

230 The WPL submissions noted that the River FMU boundaries shown on Map 3.11-1 are not hydrologically coherent with river sub-catchments included in Table 3.11-1. In particular, Sub-catchment 66 has water flowing into it from several large tributaries and can be split into Sub-catchments 66A and 66B to provide greater resolution for land management and achieving the Vision and Strategy objectives.

231 The submissions therefore requested that Map 3.11-1 should be amended by subdividing Sub-catchment 66 into Sub-catchments 66A and 66B and by amending Table 3.11-1 accordingly.

Section 42A Report recommendations

232 The Section 42A Report recommends that these submissions should be rejected because this approach is not "well supported" by the NPS-FM or by the Vision and Strategy.[258] However, these reasons conflate a discrete hydrological issue regarding Sub-catchment 66 with the broader issue regarding the need for a consistent approach to sub-catchment scale consenting and planning throughout PC1.

233 WPL notes that the latter issue (sub-catchment scale planning) will be addressed in detail later as part of the Block 3 Hearing Topics, and accordingly reserves its position on this matter.

Other submissions not addressed in the Section 42A Report

234 WPL also made other submissions regarding the Introduction to Chapter 3.11 that do not appear to be addressed by the Section 42A Report either in relation to Topic B5 or in Part A of the report in relation to freshwater quality and the NPS-FM or the full achievement of the Vision and Strategy.

235 For completeness, the reasons for these submissions together with the amendments to PC1 requested by WPL are set out in the Appendix 3 **attached** to these legal submissions. These submissions are maintained and WPL reserves the right to address

[258] Section 42A Report, 89 para 487.

them either during the Block 1 Hearing Topics or during a subsequent Block if the Commissioners consider that it would be more appropriate to address these submissions in the context of some other Topic later in the Hearing process.

Spatial extent of Sub-catchments

236 WPL made submissions about Table 3.11-2 (List of sub-catchments showing Priority 1, Priority 2, and Priority 3 sub-catchments) and Map 3.11-2 (Sub-catchments).

237 As a consequence of subdividing Sub-catchment 66 to create Sub-catchments 66A and 66B, the WPL submissions requested that:

237.1 Table 3.11-2 should be amended by deleting the row pertaining to sub-catchment 66 and inserting two new rows in substitution to list new Sub-catchments 66A and 66B as Priority 3 sub-catchments.[259]

237.2 Map 3.11-2 should be amended to show the subdivision of Sub-catchment 66 into two new Sub-catchments 66A and 66B and coloured appropriately to reflect their priority level. This amendment is illustrated on the map in Appendix D attached to the WPL submissions.[260]

Section 42A Report recommendations

238 Generally, the Section 42A Report notes that the sub-catchments defined on Map 3.11-2 are used to set freshwater objectives in 62 sub-catchments via Table 3.11-1 (discussed below) and "as the basis for encouraging community-led initiatives to identify opportunities for local collaboration and water quality restoration".[261]

239 In particular, the Section 42A Report notes that WPL requested the subdivision of Sub-catchment 66 "into 66A (Tahorakuri) and 66B (Ohakuri), as one is more riverine and the other more lacustrine".[262] But the report recommends that these submissions should be rejected because:

> Officers acknowledge there are different attributes within many sub-catchments, and are aware that differences similar to those raised in the submission from Wairakei Pastoral Ltd exist within many of the sub-catchments. The Officers consider that with improvement in monitoring data and

[259] WPL PC1-11395.

[260] WPL PC1-11396.

[261] Section 42A Report, 91 para 498.

[262] Section 42A Report, 91 para 502.

> information into the future there may be an opportunity to divide catchments in future planning processes. However, at this stage Officers do not recommend such changes.[263]

240 These submissions are maintained by WPL. These matters are fully addressed in the evidence of Dr Neale,[264] Mr Williamson,[265] and Mr McKay.[266]

Targets and Limits (Table 3.11-1)

241 WPL made submissions about Section 3.11.6 (List of Tables and Maps) in PC1, including (in particular) Table 3.11-1 that sets short-term (by 2026) and long-term (by 2096) freshwater objectives.[267]

Reasons for the WPL submissions

242 The freshwater objectives in Table 3.11-1, together with the Objectives in Chapter 3.11, are designed to guide decision-making under the RMA. They are generally (e.g. for the Waikato River adjacent to the Estate) the same as the current state of water quality so that there will be no short-term or long-term decline in water quality. In several of the tributary sub-catchments, the freshwater objectives are set in a way that will require a reduction in contaminant discharges in order to meet the 80 year long-term freshwater objectives.

243 While generally supported, this approach is problematic because it uses lake attributes (chlorophyll a, total nitrogen (**TN**) and TP) and a non-NPS-FM attribute (clarity), and applies them to the Waikato River (but not its tributaries or the Waipa catchment). But, the impoundment of the river by the Waikato hydro scheme has modified nutrient-phytoplankton dynamics, such that the relationship between nutrients and chlorophyll a in the river below the Taupo control gates is generally similar to that observed in lakes. Nonetheless, there remains some variability in this relationship and whilst there is a strong positive relationship at the sub-catchment scale, at a site scale the sites immediately below Lake Taupo (between Taupo control gates and Ohaaki Bridge) do not show a positive relationship between nutrients and chlorophyll a. Yet, at the Ohakuri tailrace site and most sites downstream of this point, there is a strong positive relationship between TP and chlorophyll a concentrations, indicating that the river is probably functioning as a lake below this location.

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[263] Section 42A Report, 92 para 506.

[264] Dr Neale, EIC paras 29-38 and 78.

[265] Mr Williamson, EIC paras 42-44.

[266] Mr McKay, EIC para 129.

[267] WPL PC1-11391.

244 The hydro lakes in the Waikato River are more aligned with a polymictic lake as they are frequently mixed by incoming water flows. This is recognised in some of the technical work undertaken to support the development of the NPS-FM, where the hydro lakes were included, but were treated as 'polymictic' lakes.

245 Therefore, from an appearance and an ecological function perspective, the Waikato River can be considered to change from a riverine system to a lacustrine system somewhere within the Ohaaki-Ohakuri reach. Based on the ecological functioning of the river at Ohaaki, the application of the NPS-FM freshwater objectives for lakes is questioned, as the river at this location has the physical and ecological characteristics of a river. This approach also lends weight to the need to subdivide Sub-catchment 66 into Sub-catchments 66A (Tahorakuri) as riverine and 66B (Ohakuri) as lacustrine. This is consistent with the rationale for not applying the NPS-FM freshwater objectives to the tributaries of the Waikato River and the Waipa catchment.

246 PC1 also asserts that reductions in diffuse nitrogen discharges will be required as result of the time lag between discharges entering groundwater and subsequently reaching the Waikato River. While this will generally be around 20 years for most of Sub-catchments 56, 58, 62, 65, 66A, 66B, 72, 73, and 74, specific lag effects will in practice differ (i.e. longer) in each sub-catchment due to variation in hydrology and other factors - e.g. geothermal influence. These factors should be taken into account (as a matter of best practice) when gathering information from properties and enterprises and applying an adaptive management and mitigation approach. For example, this foreshadows the need to amend the criteria for exercising discretion under the PC1 rules to take such spatial variation into account when deciding resource consent applications. As noted above, this assumption is conceptually flawed because it is not consistent with redox chemistry (where oxidation and reduction are considered together as complementary processes). Put simply, as groundwater ages its chemical composition will change and as a result N will be attenuated through denitrification. Accordingly, it is unlikely (in terms of probability) that old groundwater discharges will have high N loads.[268]

247 Accordingly, a nuanced approach is required to managing farming activities and commercial vegetable production, regulating land use change, and setting freshwater objectives to give effect to the provisions in relevant statutory planning instruments.[269]

[268] Mr Williamson, EIC paras 12-27.

[269] It is for note that, the regulatory approach in Table 3.11-1 and related PC1 provisions is inconsistent with Chapter 3.3 of the WRP (Implementation method 3.3.4.8) that involves managing flow for freshwater takes in a way that

248 Beyond that, PC1 does not include consistent cross-references to the freshwater objectives in the NPS-FM. For example, the terms "objectives', "limits" and "targets" are used interchangeably in Section 3.11.6. A more consistent approach would be to refer to them throughout as "freshwater objectives". PC1 also lacks appropriate cross-referencing between the sub-catchment identification numbers in Table 3.11-2 and the sub-catchment names in Table 3.11-1.

249 Overall, the 10-year freshwater objectives in Table 3.11-1 do not appear to include lag effects, but this may be due to a lack of any relevant data regarding lag times in the Section 32 Report or supporting documents. Similarly, the 80-year freshwater objectives do not appear to explicitly include mitigations. The attribute values selected for the freshwater objectives do not include an allowance for uncertainty of measurement so that they could be regarded (with confidence) as a robust reporting framework. For the reasons given above, the freshwater objectives in the table are not repeatable or representative as freshwater objectives under the NPS-FM.

Section 42A Report recommendations

250 Accordingly, the WPL submissions requested the following amendments to PC1:[270]

250.1 PC1 should be amended to use consistent cross-referencing to the NPS-FM freshwater objectives throughout the provisions. This submission is not addressed in the Section 42A Report and appears to have been rejected by the Officers. WPL maintains this submission.

250.2 Table 3.11-1 should be amended by including a new first column, which identifies and links the Sub-catchment name with the relevant Sub-catchment number as shown in manuscript on the copy of Table 3.11-1 in Appendix C attached to the submission. The Section 42A Report recommends that this submission (PC1-11391) should be accepted.[271] WPL supports this outcome.

250.3 Table 3.11-1 should also be amended by substituting the short-term and long-term numerical freshwater objectives for Sub-catchments 56, 58, 59, 62, 65, 66B, 72, 73 and 74 by the alternative freshwater objectives also shown in manuscript in the table in Appendix C referred to above. This submission is not addressed in the Section 42A Report and

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naturalises the flow of the Waikato River and its tributaries above Karapiro Dam to remove the influence of the Waikato hydro scheme.

[270] WPL PC1-11391.

[271] Section 42A Report, 98 para 546 and 113-121 para 630.

appears to have been rejected by the Officers. WPL maintains this submission.

250.4 Table 3.11-1 should be further amended by inserting an additional row to provide freshwater objectives for Sub-catchment 66A (Tahorakuri) also shown in manuscript in the table in Appendix C referred to above, as a consequence of subdividing Sub-catchment 66. The Section 42A Report recommends that this submission should be rejected.[272] WPL maintains this submission.

251 Essentially, the Section 42A Report recommends (by exception) that these WPL submissions should be rejected because no amendments appear to have been made to Table 3.11-1 in response to the submissions.[273]

252 Beyond that, WPL supports the amendment of the Explanatory note to Table 3.11-1 (recommended by the Section 42A Report) which clarifies that freshwater quality is to be "maintained" in sub-catchments where water quality is currently very high.[274] This is consistent with the approach in Policy CA2 of the NPS-FM noted above.

253 Additionally, Dr Neale also supports (in his evidence) the inclusion of loads for limit and target setting purposes for TN and TP based on the submission made by Beef+Lamb New Zealand Ltd.[275] Again, this submission appears to have been rejected.

254 These matters are fully addressed in the evidence of Dr Neale,[276] Dr Jordan,[277] Mr Ford,[278] and Mr McKay.[279]

255 WPL welcomes the directions made by the Commissioners for expert witness conferencing regarding Table 3.11-1, given its vital role as one of the twin engines that will drive the implementation of PC1.

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[272] Section 42A Report, 97 para 539.

[273] Section 42A Report, 111 para 630.

[274] Section 42A Report, 101 para 560 and 112 para 630.

[275] Dr Neale, EIC paras 40 and 93 and Appendix C; Beef+Lamb New Zealand Ltd, ID 73369, PC1-11158, V1PC1-675, and V1PC1-1658.

[276] Dr Neale, EIC paras 41-93.

[277] Dr Jordan, EIC paras 8-36.

[278] Mr Ford, EIC, paras 90-91.

[279] Mr McKay, EIC paras 31-44 and 127.

Sub-catchment priority

256 WPL made submissions regarding Table 3.11-2 (list of priority sub-catchments)[280] and Policy 14 (Lakes FMUs). The Section 42A Report notes that:

> Regulatory implementation of PC1, primarily through resource consents and FEPs is proposed across the 74 sub-catchments, and staged in three tranches to ease implementation.[281]

257 As noted above, the Estate is located in Sub-catchments 66, 72, 73, and 74. Except for Sub-catchment 72 these sub-catchments were listed as Priority 3 Sub-catchments in Table 3.11-2 as notified. Resource consent and the preparation of FEPs (to implement PC1) are required to be lodged with WRC during the period 1 January – 1 July 2026 for properties and enterprises located primarily in Priority 3 Sub-catchments.[282]

Section 42A Report recommendations

258 The Section 42A Report recommends that Sub-catchment 73 should be re-prioritised as a Priority 1 Sub-catchment based on submissions made by DoC.[283] However the DoC submissions appear to relate to natural lakes rather than hydro-lakes. Accordingly, WPL opposes this recommendation because it is (likely) out of scope.

259 Policy 8 explains (inter alia) that sub-catchments where the gap between the freshwater objectives in Table 3.11-1 and current water quality is greatest (based on a best estimate approach),[284] and 75th percentile nitrogen leaching dischargers are prioritised and required to secure resource consent earlier than other sub-catchments. However, the submissions made about Policy 8 do not appear to be addressed by the Section 42A Report. WPL assumes that these submissions will be addressed later in the Hearing process and reserves its position accordingly.

260 As a consequence of subdividing sub-catchment 66 to create Sub-catchments 66A and 66B, WPL also sought that Table 3.11-2 should be amended to provide for both new sub-catchments as

[280] WPL PC1-11395.

[281] Section 42A Report, 123 para 631.

[282] PC1, Rule 3.11.5.4 Controlled Activity Rule – Farming activities with a Farm Environment Plan not under a Certified Industry Scheme.

[283] DoC PC1-11067; Section 42A Report, 125-127 para 652.

[284] Section 42A Report, 124 para 642.

Priority 3 Sub-catchments. This submission appears to have been rejected by the Officers.[285]

261 Notwithstanding this recommendation, WPL considers that there is hydrological merit in subdividing Sub-catchment 66 and therefore seeks that Table 3.11-2 should be amended by deleting the row pertaining to sub-catchment 66 and inserting two new rows in substitution to list new Sub-catchments 66A and 66B as Priority 3 sub-catchments.

262 These matters are fully addressed in the evidence of Dr Neale[286] and Mr Williamson.[287]

Policy 14

263 WPL also made submissions regarding Policy 14 pertaining to Lakes FMUs.[288] The company considers that this policy is important for achieving Objectives 1 and 3. Accordingly, WPL sought that Policy 14 should be retained as notified or amended by similar wording to like effect. The Section 42A Report recommends that minor amendments should be made to Policy 14 based on submissions made by Tangata Whenua. WPL supports these amendments.

CONCLUSIONS

264 Generally, WPL supports the broad objectives in PC1 to maintain and improve freshwater quality, but considers that PC1 requires amendment (as described in the WPL submissions and expert evidence) to ensure that PC1 will in practice give effect to these objectives.

265 The consequences of the science findings are that actions will need to be put in place sufficiently early so that they can be implemented and discharges can be managed before 2026 so that the short-term freshwater objectives in PC1 are actually met. This foreshadows the need to amend relevant policies, methods, and rules (to be addressed in Blocks 2 and 3) to ensure that Objective 3, in particular, can actually be achieved.

266 The PC1 objectives (as amended by Mr McKay) are now generally suitable for achieving sustainable management, subject to Table 3.11-1 being revised as recommended by Dr Neale and other expert witnesses.

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[285] Section 42A Report, 125 para 652.

[286] Dr Neale, EIC paras 29-35 and 78.

[287] Mr Williamson, EIC paras 42-44.

[288] WPL PC1-11354.

267 WPL therefore welcomes the directions made by the Commissioners for expert witness conferencing regarding Table 3.11-1, given its vital role as one of the twin engines that will drive the implementation of PC1.

268 Finally, given the duration and nature of these Hearings WPL considers that it would be helpful for all counsel to file closing submissions 5 working days prior to the date set for WRC to give its reply.

Dr RJ Somerville QC / Dr T Daya-Winterbottom

Counsel for Wairakei Pastoral Ltd

5 March 2019

APPENDIX 1

Overview of WPL submissions

1 WPL made comprehensive submissions on PC1 and Var1. In summary, they requested the following amendments to the notified provisions:

Background and Explanation

1.1 WPL made submissions on PC1 regarding the Background and Explanation (3.11) to ensure that land use change can occur in sub-catchments where activities do not pose a "high risk" and can be suitably mitigated via consent conditions, to provide a foundation for introduction of a more refined nitrogen cap, and to clarify the short-term (2016-2026) and long-term (2026-2096) time horizons for delivering anticipated environmental outcomes.

Values

1.2 WPL made submissions on the Variation regarding the Values (3.11.1) to ensure that springs are referenced consistently throughout PC1.

Objectives

1.3 WPL made submissions on PC1 regarding Objectives 1 and 2 (3.11.2) focused on "maintenance" of water quality in sub-catchments where water quality is high, and to ensure that social and economic wellbeing is appropriately recognised.

1.4 WPL also made submissions on PC1 and the Variation regarding the reasons for adopting Objectives 1, 3 and 4 to provide an adequate foundation for appropriate permitted activity rules, to ensure that PC1 adopts a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels, and to enable enterprises capable of delivering the anticipated environmental outcomes at scale to apply for consent under PC1 from 2016 onwards to maximise compliance and regulatory efficiency.

1.5 The WPL submissions also generally supported Objectives 5 and 6 as notified (or similar wording to like effect). However, the effect of the amendments to these objectives recommended in the Section 42A Report are such that the original intent of these provisions is either substantively changed or questioned. Mr McKay therefore suggests (in his

planning evidence) some further amendments to these objectives to recover their original intent.

Policies

1.6 WPL made submissions on PC1 regarding Policies 1, 2, 4, 5, 8, 14, and 16 (3.11.3) focused on "maintenance" of water quality in sub-catchments where water quality is high, to ensure that PC1 adopts a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels, and to enable enterprises capable of delivering the anticipated environmental outcomes at scale (via adaptive management and mitigation provisions included in Farm Environment Plans) to apply for consent under PC1 from 2016 onwards to maximise compliance and regulatory efficiency.

1.7 In particular, the WPL submissions regarding Policies 6, 7, 10, 11, 12, and 13 ensure that PC1 adopts a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels, and that a consistent approach is adopted by the PC1 policy framework concerning both diffuse and point-source discharges.

1.8 Additionally, the WPL submissions on PC1 and the Variation also seek amendments to the Glossary of Terms,[289] and to insert new Schedules 2, 3, and 4 into PC1 to underpin a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels (including adaptive management and mitigation methods).

Methods

1.9 WPL made submissions on PC1 regarding Methods 3.11.4.3, 3.11.4.5, 3.11.4.7, 3.11.4.8, 3.11.4.10, and 3.11.4.11 to ensure that Farm Environment Plans are prepared and monitored by appropriately qualified or experienced persons regardless of local authority certification, to ensure that PC1 adopts a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels, and to enable enterprises capable of delivering the anticipated environmental outcomes at scale (via adaptive management and mitigation provisions included in Farm Environment Plans) to apply for consent under PC1

[289] In addition, further submissions made by WPL also address the decisions requested by other submitters regarding the definitions pertaining to Certified Farm Nutrient Advisors, Enterprises, the Nitrogen Reference Point, Properties, and the 75th percentile nitrogen loss value.

from 2016 onwards to maximise compliance and regulatory efficiency.

Rules

1.10 WPL made submissions on PC1 and the Variation regarding Rules 3.11.5.2, 3.11.5.4, 3.11.5.6, and 3.11.5.7 to ensure that PC1 adopts a consistent approach to encouraging resource consent applications to be made at property, enterprise, and sub-catchment levels, to enable enterprises capable of delivering the anticipated environmental outcomes at scale (via adaptive management and mitigation provisions included in Farm Environment Plans) to apply for consent under PC1 from 2016 onwards to maximise compliance and regulatory efficiency, and to make express provision for the transfer of land use consents and discharge permits. The WPL submissions also request that Rule 3.11.5.3 should be deleted. Whether the restrictions on land use change in Rule 3.11.5.7 are consistent with s 32 of the RMA will be addressed in relation to the Block 2 Hearing Topics.

Schedules

1.11 WPL made submissions on PC1 regarding Schedules B and 1 to ensure that appropriate models can be used to calculate robust Nitrogen Reference Points consistent with best practice, as an alternative to merely relying on the OVERSEER model alone.

Tables

1.12 WPL made submissions on PC1 regarding Table 3.11-1 to ensure that more appropriate, defensible, and robust short-term and long-term freshwater objectives are adopted as the baseline for deciding resource consent applications during the period 2016-2026.

Maps

1.13 WPL made submissions on PC1 regarding Map 3.11-2 to ensure that sub-catchments are defined at an appropriate scale (e.g. by subdividing sub-catchment 66 to create new sub-catchments 66A and 66B).

1.14 Beyond that, the WPL submissions made on PC1 and the Variation address all other notified provisions and reserve the rights to retain or amend them by similar wording to like effect, and to make such alternative, consequential or further amendments as may be required either to promote

sustainable management or to give effect to the WPL submissions.

2 Generally, WPL supports the broad objectives in PC1 to maintain and improve freshwater quality, but considers that PC1 requires amendment (as described in the WPL submissions) to ensure that PC1 will in practice give effect to these objectives.

APPENDIX 2

Glossary of Terms

B+LNZ Beef and Lamb NZ

CSG Collaborative Stakeholder Group

CSG report Overview of Collaborative Stakeholders Group's Recommendations for Waikato Regional Plan Change No 1 - Waikato and Waipa River catchments

DO dissolved oxygen

Estate Wairakei Estate

ETS Emissions Trading Scheme

Fe^{2+} dissolved iron

FEPs Farm Environment Plans

FMUs Freshwater Management Units

FWO Freshwater Objectives

GFP Good Farming Practice

GMP Good Management Practice

HRWO Healthy Rivers Wai Ora

LDA linear discriminant analysis

LGA Local Government Act 2002

LSR land surface recharge

MfE Ministry for the Environment

Mn^{2+} dissolved manganese

MRT mean residence times

N nitrogen

N_2 nitrogen gas

NES-PF National Environmental Standards for Plantation Forestry 2017

NES-SHDW National Environmental Standards for Sources of Human Drinking Water 2007

NH_4 ammonium

NO_3^- nitrate

NOF National Objectives Framework

NPS-FM National Policy Statement for Freshwater Management 2014 (as amended)

NPS-REG National Policy Statement for Renewable Energy Generation

NRP Nitrogen Reference Point

NTNK Ngati Tahu – Ngati Whaoa

NZCPS New Zealand Coastal Policy Statement 2010

P phosphorus

PAMU Landcorp Farming Ltd

PC1 Proposed Waikato Regional Plan Change 1

RDST Ruahuwai decision support tool

RLAA Resource Legislation Amendment Act 2017

RMA Resource Management Act 1991

RMSE root mean square error

S^{2-} sulphide

Section 32 Report Section 32 Evaluation Report

Settlement Act Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

SO_4^{2-} sulphate

TAND Total Annual Nitrogen Discharge

TLG Technical Leaders Group

TN Total nitrogen

TP Total phosphorus

TSS total suspended solids

Var1 Variation 1

Vision and Strategy Vision and Strategy for the Waikato River

WPL Wairakei Pastoral Ltd

WRP Waikato Regional Plan

WRPS Waikato Regional Policy Statement

APPENDIX 3

Introduction to Chapter 3.11

1 Section 3.11 Waikato and Waipa River Catchments – Background and Explanation.

Submission on PC1

2 WPL **supports** the specific provisions in relevant part and **opposes** them in relevant part, and wishes to have them amended as detailed below.

Reasons for the submission

3 WPL generally supports the collaborative approach outlined in this section. Notwithstanding this support, a number of amendments/additions are required to clarify the intent of the approach that has been developed through the collaborative approach. In particular, WPL seeks clarification as to whether over-allocation has occurred at each sub-catchment and FMU level (which does not appear to be the case for all water bodies in every sub-catchment), and that addressing land use change effects will be focused on priority sub-catchments with higher risks. WPL seeks clarification that the Stage 1 approach provides for a sub-catchment approach to be adopted before the priority dates referenced (inter alia) in Rule 3.11.5.4, where an adaptive management and mitigation approach is adopted for the sub-catchment to manage key contaminant losses through input loads and identified mitigation.

4 This is an important point, because the “current understanding” in PC1 is focused exclusively on preventing land use change, whereas changes in the management approach can also achieve a better environmental outcome without restricting land use change.

5 A sub-catchment-scale approach encourages a ‘local’ perspective, which can identify opportunities for concentrated investment in sub-catchment-wide interventions (infrastructure, remediation, mitigation) to interrupt contaminant pathways, revive natural ecosystems and re-establish ecosystem-services.

6 Overall, this submission demonstrates a sound alternative to PC1 as notified from an economic perspective, because it moves the planning regime ahead of that envisioned in PC1 and is therefore able to propose a better economic alternative than that which could be achieved out of the notified PC1. PC1 as notified provides a holding pattern for land uses across the region. During this ten year period there is little or no opportunity for landowners to move towards a far more efficient mix of land uses that have the potential

to improve their collective economic performance. Thus from an economic perspective PC1 (as notified) can be considered a second best alternative. The amendments made to PC1 by this submission will therefore advance its implementation by ensuring that the sub-catchment management approach developed by PC1 can become a practical reality. This will be less financially disruptive for properties and enterprises, it will provide for land use to be reconfigured and improve allocative efficiency by aligning land use more closely with optimal biophysical outcomes, and provide a catalyst for early movers and a powerful financial incentive for others to make early progress too.

Decision sought

7 The Background and Explanation in Section 3.11 should be amended by deleting (strikethrough) and inserting the words coloured red as follows:

8 Paragraph two regarding "Water quality and National Policy Statement for Freshwater Management":

> 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 ~~(generally)~~ from a water quality point of view, over-allocation has occurred within the FMU's while in some water bodies current water quality is high. Some water bodies in the Waikato and Waipa River catchments are therefore 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.[290]

9 Paragraph one regarding "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 potential 'innovation gap' that means full achievement of

[290] WPL PC1-11257.

water quality requires technologies or practices that ~~are~~ may not ~~yet~~ be 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~~ mitigation) within high-risk sub-catchments. Whereas in other sub-catchments it will be more appropriate to focus on applying mitigation methods via consent conditions, rather than simply preventing land use change.[291]

10 Paragraph four (introductory sentence, bullet point three and new bullet point four) regarding "Full achievement of the Vision and Strategy will be intergenerational":

> The Stage 1 approach to reducing contaminant losses from pastoral farm land implemented by Chapter 3.11 requires:
>
> …
>
> - a property or enterprise scale nitrogen reference point to be established by modelling current nutrient losses from each property or enterprise, with no property or enterprise being allowed to exceed its reference point in the future and higher dischargers being required to reduce their nutrient losses; or
>
> - the introduction of a refined sub-catchment based nitrogen cap.[292]

11 Paragraph eight regarding "Full achievement of the Vision and Strategy will be intergenerational":

> In the short term (i.e. Stage 1 = 10 years), 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 (but not prohibited). 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 (i.e. 10 – 80 years), 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

[291] WPL PC1-11259.

[292] WPL PC1-11259.

> 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.[293]

12 PC generally to consistently refer to "property or enterprise" throughout.[294]

Submission on Var1

13 WPL **supports** the amendments made to the Background and Explanation in relevant part, and wishes to have them retained or amended as detailed below.

Reasons for the submission

14 The amendments made to the Background and Explanation is consistent with reinstatement of the withdrawn section of PC1.

15 For the avoidance of doubt, WPL does not, however, resile from the decision sought regarding the Background and Explanation in the PC1 submission (see Appendix A, A2, pages 8-11 of the PC1 submission). The PC1 submission and the decision sought are maintained.

Decision sought

16 The amendments made by the Variation to the Background and Explanation should be retained as notified or amended to like effect.[295]

[293] WPL PC1-11259.

[294] WPL PC1-11259.

[295] WPL V1PC1-438.