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

# SUPPLEMENTARY LEGAL SUBMISSIONS FOR WAIRAKEI PASTORAL LTD

## **Block 1 Hearing Topics**

Dated: 2 April 2019

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

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

## SUPPLEMENTARY LEGAL SUBMISSIONS OF COUNSEL FOR WAIRAKEI PASTORAL LTD

## **Block 1 Hearing Topics**

- 1 These supplementary legal submissions are made on behalf of Wairakei Pastoral Ltd (**WPL**) regarding the Block 1 Hearing Topics. They are designed to be read together with the legal submissions already filed regarding the Block 1 Hearing Topics.
- 2 In its Minute of 19 February 2019, the Panel indicated that it would like further legal submissions on a number of issues. These supplementary submissions respond to those issues and to some matters raised during the hearing.
- Also, in these supplementary submissions, we have summarised the principles that the Panel will need to apply when considering the potential question of scope.

#### Interpreting and implementing the Vision and Strategy

The Hearing Panel asked the following question in its Minute of 19 February 2019:

Given the legal obligation to give effect to it, does the Council consider that some elements of the Vision and Strategy take precedence? If so, what is the basis for that view, and which elements are prioritised? If the Council considers there is no internal priority, how does the Council suggest the Panel resolve areas of perceived conflict?

- 5 Section 5 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (**the Settlement Act**) states that the Vision and Strategy is intended by Parliament to be the "primary direction-setting document" for the Waikato and Waipa Rivers.
- Statutory support for an holistic approach may be found in s 22(2)(b) of the Settlement Act, which states that one of the purposes of the Waikato River Authority is to "promote an integrated, holistic, and co-ordinated approach" to the implementation of the Vision and Strategy and the management of the Waikato River.
- 7 The Vision and Strategy was incorporated directly into the Waikato Regional Policy Statement (WRPS) without using the Schedule 1

process and the rest of the WRPS must be consistent with the Vision and Strategy.<sup>1</sup> In summary:

- 7.1 The Vision and Strategy prevails over any inconsistent provision in the National Policy Statement for Freshwater Management (NPS-FM) (as amended in 2017) or the New Zealand Coastal Policy Statement 2010 (NZCPS).<sup>2</sup>
- 7.2 Amendments cannot be made to RMA planning documents to give effect to the NPS-FM or the NZCPS if that would make the document inconsistent with the Vision and Strategy.<sup>3</sup>
- 7.3 WRC must review the WRPS to ensure that it is consistent with the Vision and Strategy and, if not, to amend it to make it consistent.<sup>4</sup>
- 7.4 WRC must also review the Waikato Regional Plan (**WRP**) to see whether it gives effect to the Vision and Strategy, and if it does not, to amend it to ensure that it does give effect.<sup>5</sup>
- The overarching requirement for interpretation of the Settlement Act and the Vision and Strategy "is to restore and protect the health and wellbeing of the Waikato River for future generations" (s 3). This is consistent with the provisions of the NPS-FM regarding the national significance of fresh water and Te Mana o te Wai, namely:<sup>6</sup>

The health and well-being of our freshwater bodies is vital for the health and well-being of our land, our resources (including fisheries, flora and fauna) and our communities.

Te Mana o te Wai is the integrated and holistic well-being of a freshwater body.

...

By recognising Te Mana o te Wai as an integral part of the freshwater management framework it is intended that the health and well-being of freshwater bodies is at the forefront of all discussions and decisions about fresh water, including the identification of freshwater values and objectives, setting limits and the development of policies and rules. This is intended to ensure

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<sup>&</sup>lt;sup>1</sup> Settlement Act 2010, s 11.

Settlement Act, s 12(1).

<sup>&</sup>lt;sup>3</sup> Settlement Act, s 12(3).

Settlement Act, s 13(3).

<sup>&</sup>lt;sup>5</sup> Settlement Act, s 13(4).

<sup>&</sup>lt;sup>6</sup> NPS-FM (updated 2017), at 7

that water is available for the use and enjoyment of all New Zealanders, including tangata whenua, now and for future generations.

9 The Vision for the Waikato River is set out in Schedule 2 of the Settlement Act. It includes the statement:

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

- The Vision and Strategy contains 13 objectives to be pursued in realising the Vision.
- 11 WPL submits that there is no priority amongst the objectives of the Vision and Strategy.
- 12 The overarching purpose of the settlement is to restore and protect the health and wellbeing of the Waikato River for future generations.<sup>7</sup>
- The objectives are to be "pursued" in order to "realise" the Vision. No one element of the Vision and Strategy takes precedence over others. Nor does any one policy in the NPS-FM take precedence over the other policies. This is clear from the judgment of Smith EJ in *Puke Coal*<sup>θ</sup> at [144] and [146] (see **Appendix 1**).
- 14 Section 13(4) of the Settlement Act requires Plan Change 1 (**PC1**) to give effect to the Vision and Strategy. It will therefore be a matter of identifying the objectives of the Vision and Strategy that are relevant to PC1, paying careful attention to the way they are expressed. There is also a continuing obligation in terms of any resource consents granted (whether before or after the enactment of the Settlement Act) to review consent conditions under s 128 of the RMA "to make them consistent with the vision and strategy". This obligation is important given the absence of any review provisions in PC1.
- The Environment Court in Carter Holt Harvey Ltd v Waikato Regional Council (Variation 6) when discussing the Vision and Strategy said it is not appropriate to pick out certain parts of the

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Settlement Act, s 3.

<sup>&</sup>lt;sup>8</sup> Schedule 3 of the Settlement Act, clause (3).

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

Environmental Defence Society v New Zealand King Salmon Company [2014] NZSC 38, [2014] 1 NZLR 593, [2014] NZRMA 195 at [129].

<sup>&</sup>lt;sup>11</sup> Settlement Act, s 14(2).

Vision and Strategy as this runs the risk of detracting from the holistic nature of the Vision and Strategy and "inappropriately implies that the quoted parts are more important than others". <sup>12</sup>

- The second part of the Panel's question asks, if there is no internal priority, how should the Panel resolve areas of perceived conflict. WPL submits that there is no perceived inconsistency or conflict between the 13 objectives. The Panel is required to read the Vision and Strategy carefully and as a whole. The Supreme Court's majority judgment in *Environmental Defence Society v New Zealand King Salmon Company Ltd* conveys a clear message that conflicts between provisions should not be readily assumed.<sup>13</sup>
- 17 WPL agrees with Waikato Regional Council's (**WRC**) submission that what is required is a "fair appraisal" of the objectives read as a whole, while bearing in mind that those expressed in directive terms must be given effect to in PC1.<sup>14</sup>
- 18 It is also for note that none of the parties have to date suggested that there is any conflict between the Vision and Strategy and the NPS-FM, with the sole exception of the comment made in the Section 42A Report about swimming. The latter point was fully addressed in paras 95-101 of the WPL legal submissions. There is no conflict in that regard.

## Science and economic modelling underpinning the provisions of PC1

19 The concerns and issues raised by the expert witnesses for WPL regarding the science modelling that underpins the provisions of PC1 are fully summarized in para 141 of the WPL legal submissions. Primarily, they relate to the ground water lag assumptions, the use of the OVERSEER based Nitrogen Reference Point (NRP) as a universal guide to nitrogen (N) control, and Table 3.11-1. These matters go to the amendment of Table 3.11-1 in Block 1 and to the amendment of the policies, methods, and rules in Block 2. In terms of economic modelling, Mr Ford (for WPL) was concerned that only Scenario 1 was tested, and that only the preferred policy choice was tested under s 32 of the RMA in relation to the selection of the notified policies, methods, and rules, However, notwithstanding his concerns regarding the WRC scenario modelling Mr Ford considers that the PC1 objectives (as amended by Mr McKay) are suitable. The s 32 evaluation of the policies, methods, and rules will be addressed in Block 2.

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Carter Holt Harvey Ltd v Waikato Regional Council [2011] NZEnvC 380 at [429]. See also Auckland Regional Council v Living Earth Ltd [2009] NZRMA 22 at [45].

<sup>13</sup> King Salmon, at [129].

<sup>&</sup>lt;sup>14</sup> Submissions of Waikato Regional Council dated 11 March 2019, at [49]-[50].

#### **Collaborative Stakeholder Group process**

20 WRC acknowledged that the Collaborative Stakeholder Group (CSG) was a "non-statutory" community engagement process, 15 and in response to questions from the Panel about what weight should be put on the process counsel indicated that it was now a matter of merely historic explanation as to "how we got to where we are". Beyond that, the CSG process does not have any special weight as noted in para 107 of the WPL legal submissions. 16

## Documents that must be given effect to

- These matters are fully addressed in the WPL legal submissions regarding the relevant National Policy Statements (**NPS**), the Vision and Strategy, and the WRPS.
- 22 Beyond that, none of the parties has raised any issue of inconsistency, failure to have regard to, or failure to take into account any of the relevant documents identified by the Panel, apart from matters regarding the NZCPS raised by the Director-General of Conservation.<sup>17</sup>

#### Jurisdiction to amend Table 3.11-1 numerical values

- The issue is whether submissions seeking additional attributes in Table 3.11-1 are "on" the plan change.
- WPL submits that these submissions are "on" the plan change and are therefore legitimate submissions for the purposes of clause 6 of schedule 1 of the RMA.
- The right to make a submission on a plan change is conferred by cl 6 of sch 1 of the RMA. Clause 6(1) states that the persons described in the clause may make a submission "on" on the plan change. If the submission is not on the plan change, the council has no jurisdiction to consider it.
- 26 The leading authorities on whether a submission is "on" a plan change are Clearwater Resort Ltd v Christchurch City Council<sup>18</sup>

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Submissions of Waikato Regional Council dated 11 March 2019, at [108].

<sup>&</sup>lt;sup>16</sup> Resource Legislation Amendment Act 2017, sch 12, pt 2, cl 14(1)(b).

Submissions of the Director-General of Conservation dated 20 March 2019, at paras 52-55.

Clearwater Resort Ltd v Christchurch City Council (HC Christchurch AP34/02 13 March 2003).

(Clearwater) and Palmerston North City Council v Motor Machinists Ltd<sup>19</sup> (Motor Machinists).<sup>20</sup>

- 27 In Clearwater, the High Court held that:<sup>21</sup>
  - 27.1 A submission can only be regarded as being "on" a plan change or variation of it if it addresses the extent to which the plan change or variation changes the pre-existing status quo; and
  - 27.2 If the effect of regarding a submission as being "on" a plan change or variation would be to permit a planning instrument to be amended without real opportunity for participation by those potentially affected, that is a powerful consideration against finding the submission to be "on" the change.
- 28 The High Court also made the following observations:<sup>22</sup>

... it is common for a submission on a variation or proposed plan to suggest that the particular issue in question be addressed in a way entirely different from that envisaged by the local authority. It may be that the process of submissions and cross-submissions will be sufficient to ensure that all those likely to be affected by or interested in the alternative method suggested in the submission have an opportunity to participate. In a situation, however, where the proposition advanced by the submitter can be regarded as coming out of "left field", there may be little or no scope for public participation. Where this is the situation, it is appropriate to be cautious before concluding that the submission (to the extent to which it proposes something completely novel) is "on" the variation.

The *Clearwater* test was applied by the High Court in *Motor Machinists*. In that case, the High Court observed that a very careful approach must be taken to the extent to which a submission may be said to satisfy both limbs one and two of the *Clearwater* test. The Court went on to say:<sup>23</sup>

Permitting the public to enlarge significantly the subject matter and resources to be addressed through the Schedule 1 plan change process beyond the original ambit of the notified proposal is not an efficient way of delivering plan changes.

<sup>22</sup> Clearwater, at [69].

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Palmerston North City Council v Motor Machinists Ltd [2013] NZHC 1290.

The Clearwater/Motor Machinists tests were applied recently by the High Court in Mackenzie v Tasman District Council [2018] NZHC 2305.

<sup>&</sup>lt;sup>21</sup> Clearwater, at [66].

<sup>&</sup>lt;sup>23</sup> Motor Machinists, at [79].

- The High Court characterised the first limb of the *Clearwater* test as a "filter", based on a direct connection between the submission and the degree of alteration proposed in the notified plan change. The first limb was said to be the "dominant consideration", and one that involves two aspects. First, what is the breadth of the alteration in the status quo envisioned by the notified plan change, and secondly whether the submission addresses those alterations.<sup>24</sup>
- 31 The High Court noted that one way of analysing that is to ask whether the submission raises matters that should have been addressed in the s 32 evaluation and report. If not, the submission is unlikely to fall within the ambit of the plan change.<sup>25</sup>
- 32 In Mackenzie v Tasman District Council, the High Court said:<sup>26</sup>

Ms Mackenzie has misunderstood the *Clearwater/Motor Machinists* first limb test. That a rule "touches" on a particular area of land is not enough. It is about understanding the alteration to the status quo effected by the plan change.

[Footnote omitted]

- 33 The status quo in the present case is the WRP.
- The second limb asks whether there is a real risk that persons directly affected by the additional change, as proposed in the submission, have been denied an effective response. The Court said that to override the reasonable interests of people and communities by a "submissional sidewind" would not be a robust, sustainable management of resources.<sup>27</sup>
- 35 In *Mackenzie v Tasman District Council*, the High Court said that the second limb of the test is:<sup>28</sup>

... focussed on fairness of process and ensuring those potentially affected are both notified and have the opportunity to have their say. It would be a powerful consideration against finding that the Submission was truly "on" the variation if the effect of regarding a submission as "on" a variation would be to permit a planning instrument to be appreciably amended without real opportunity for participation by those potentially affected.

Motor Machinists, at [81].

Motor Machinists, at [8

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<sup>&</sup>lt;sup>24</sup> Motor Machinists, at [80].

<sup>&</sup>lt;sup>26</sup> Mackenzie v Tasman District Council [2018] NZHC 2304 at [79].

<sup>&</sup>lt;sup>27</sup> Motor Machinists, at [82].

<sup>&</sup>lt;sup>28</sup> Mackenzie v Tasman District Council, at [105], citing Motor Machinists at [55].

- The consideration of procedural fairness was discussed recently by the High Court in *Albany North Landowners v Auckland Council.*<sup>29</sup> The High Court was specifically dealing with the issue of whether the Hearings Panel decision was authorised by the scope of submissions, and so did not deal with the jurisdictional question of whether a submission falls within cl 6(1) of sch 1. However, the High Court expressly acknowledged the natural justice concerns raised by the High Court in *Clearwater* and in *Motor Machinists*.
- In the present case, the Table 3.11-1 numerical values are addressed primarily in the evidence and rebuttal of Dr Neale (for WPL) and also in the supplementary evidence of Mr Conland (for WPL), and the issues raised by them are summarized in para 141.3 of the WPL legal submissions. Conceptually, Dr Neale considers that the Table is sound but requires amendment. In addition to the matters covered by the notified Table Dr Neale recommends that current state data and Total Nitrogen (TN) and Total Phosphorus (TP) loads should also be included in the Table (based on the submissions<sup>30</sup> and further submissions<sup>31</sup> made by WPL).
- The first issue, therefore, is whether WPL's submissions address the extent to which PC1 changes the pre-existing status quo.
- WPL submits that its submission has raised matters that should have been, and to some extent, were addressed in the Section 32 Report. For example, while the report is concerned with the effects of diffuse discharges of nitrogen, phosphorous, sediment and microbial pathogens entering water, it specifically states that the objectives in the WRP (the status quo) are currently insufficient on their own to give effect to the NPS-FM.<sup>32</sup> The NPS-FM does not confine itself to the four contaminants mentioned in the notified plan change. The current state data and TN and TP loads were also considered in Part C of the Section 32 Report.
- The second issue is whether WPL's submissions permit the planning instrument to be appreciably amended without real opportunity for participation by those potentially affected.
- WPL submits that other potentially interested people would have been aware that the NPS-FM refers to attributes other than the four contaminants contained in PC1 and, therefore, would have been alerted to the possibility that other submitters may wish to amend the attributes in Table 3.11-1.

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<sup>&</sup>lt;sup>29</sup> Albany North Landowners v Auckland Council [2018] NZHC 138 at [130]

<sup>&</sup>lt;sup>30</sup> WPL ID:74095, PC1-11391.

<sup>&</sup>lt;sup>31</sup> Beef + Lamb New Zealand Ltd ID:73369, PC1-11158, V1PC1-675, V1PC1-1658.

<sup>32</sup> Section 32 Evaluation Report, p.9.

#### **National Policy Statement for Freshwater Management 2014**

- Three matters have arisen regarding the NPS-FM. First, the question of identifying the freshwater objectives for the purposes on NPS-FM. WRC considers that PC1 Objectives 1 and 3 are the relevant freshwater objectives, whereas WPL contends that the numeric values in Table 3.11-1 are (subject to amendment) the relevant freshwater objectives that are required to be derived in accordance with Policy CA2 of the NPS-FM.
- Second, whether PC1 needs to be amended in any respect to comply with the NPS-FM 2017 updates. Under s 67(3)(a) of the RMA, PC1 is required to give effect to the NPS-FM in force at the times when decisions and recommendations are made. There are no relevant saving or transitional provisions. WRC therefore considers that PC1 can only be amended to comply with the NPS-FM 2017 updates either (a) where there is scope provided by submissions, or (b) absent scope via notification of a further variation to PC1. The legal requirement to give effect to the NPS-FM (as amended 2017) however remains to be complied with.
- 44 Third, the question of whether the values and uses currently included in Section 3.11.1 of PC1 should (in fact) be included in PC1 or should merely be recorded in the Section 32 Report. WPL made submissions about the values because it was (inter alia) concerned about the lack of any connection between the values and other PC1 provisions. While the Section 42A Report proposes to resolve this matter in a general way, on reflection WPL now considers that the values should not be included in PC1. The requirement to consider values is merely part of the process for formulating freshwater objectives under Policy CA2 of the NPS-FM. Subject to amendment, the PC1 objectives appear to be suitable and give effect to the NPS-FM and the Vision and Strategy without the need for further interpretation. Beyond that, from a practical perspective the values could prove to be challenging to apply when deciding resource consent applications under PC1.

#### Trends in river water quality in the Waikato region 1993-2017

The report *Trends in river water quality in the Waikato region 1993-2017* prepared by Mr Vant (of WRC) sets out the results surface water quality. The results were described by Mr Vant as mixed with some improvements in TP and some increases in TN concentrations (based on groundwater legacy effects), and that while the results are promising they are provisional and do not provide a guarantee of future results. However, the value of the report is limited in terms of PC1 given the particular emphasis on N in PC1 and the absence of any comparable groundwater monitoring data from WRC.

Beyond that, none of the witnesses who have filed rebuttal or supplementary evidence (including Mr Vant) challenge the evidence of Mr Williamson (for WPL), namely, that the basis for the assumed long-term groundwater load having any significant adverse effects on surface water quality is unclear and does not appear to be well-founded.

#### Sub-catchment based planning approach

- Sub-catchment based planning approach was addressed by Mr McCallum-Clark in response to questions from the Panel. He agreed (in principle) that PC1 could be amended to provide for the sub-catchments to be used as Freshwater Management Units (FMUs) for managing water quality, but was concerned that this would not be consistent with requirements in the NPS-FM or the Vision and Strategy to have regard to a whole of catchment perspective.
- WPL notes that NPS-FM Objective C1 requires water quality to be managed in an integrated way from a whole catchment perspective, but that the NPS-FM implements this objective through detailed management of spatially smaller FMUs under (inter alia) Objective A2. There is no defined spatial extent for FMUs in the NPS-FM that would prevent them from being based on the PC1 sub-catchments notified or requested via submissions.
- Generally (as noted in para 238 of the WPL legal submissions), 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 and "as the basis for encouraging community-led initiatives to identify opportunities for local collaboration and water quality restoration". 33
- Beyond that, PC1 is replete with references to sub-catchment scale planning and includes Method 3.11.4.5 to encourage voluntary approaches to sub-catchment scale planning. WPL considers that sub-catchment planning is a missing link from PC1 and will address requested changes to PC1 to provide for this as a regulatory method in Block 3.

#### Rules - section 9 and section 15

51 The Panel has asked the following question:

The Panel accepts that the Rules will be addressed in subsequent hearings, but to set the context for the future hearings asks the following –

<sup>33</sup> Section 42A Report, 91 para 498.

Most of the rules appear to be a combination of a section 9 landuse rules and a section 15 discharge rule (eg Rule 3.11.5.1 – "The use of land for farming activities ... and the associated diffuse discharge of nitrogen, phosphorous, sediment and microbial pathogens onto the land in circumstances which may result in those contaminants entering water ...").

Are the rules a land use rule (and 'run' with the land) or a discharge rule (giving rise to the possibility of transfer), or both?

This also raises the question of who 'owns' the Farm Environment Plan (FEP) and any established Nitrogen Reference Point (NRP) (in particular with respect to leased land) and the 'right' to be able to discharge (diffusely) if it is a discharge, as opposed to a land use, consent.

Is it envisaged that any discharge consent is able to be 'transferred' (section 137 – Transferability of discharge permits). If so, what is the likely impact on the land from which the transfer has occurred, which would then either not comply with its FEP, or have a reduced or no ability to diffusely discharge any of the 4 contaminants if the transfer had 'obtained' all of the discharge capacity for the site?

- WPL understands that WRC intends to provide the hearing with new rules instead of the hybrid rules proposed in PC1.
- On reflection, WPL has some concerns about the use of hybrid rules and will address this aspect more fully in the Block 2 hearings.
- WPL's preliminary view at this stage is that diffuse discharges from farm animals should be dealt with by way of a s 9 land use consent. Effect can be given to the Vision and Strategy and the NPS-FM by managing N loading at the root zone, in terms of a resource consent. Farm Environment Plans (FEPs) can specifically address the management of the land use.
- It is also a more effective way of addressing the transfer of resource consents if the consent were to run with the land.
- The implications for the surface water on the river of land uses where the N is moving through the groundwater to the surface water is not something that can be controlled by way of consent conditions because of the multiple factors that are outside of the consent holder.
- 57 WPL does not consider that farming diffuse discharges and the resultant urine patches can be addressed through a s 15 discharge

- rule for the reasons given by the Hon Lester Chisholm in the Tukituki Panel Report.  $^{34}$
- In addition, it does not sit comfortably with s 70 of the RMA, which deals with mixing zones, to have diffuse discharges addressed through s 15, which it would need to be able to do.
- The administrative difficulties identified by Whiting EJ in *Carter Holt Harvey* in relation to Variation 5 (while not insurmountable) also indicate that land use rules are more practicable.<sup>35</sup>
- Provided that any land use rules implement effective controls to manage diffuse discharges the requirements of the Vision and Strategy should be met.

#### **OVERSEER**

OVERSEER has been addressed via questions from the Panel. The shortcomings of OVERSEER have been illustrated by the 2018 report from the Parliamentary Commissioner for the Environment. Mr McCallum-Clark (for WRC) accepted that it would not be appropriate to use OVERSEER to set hard regulatory limits to be met by farms or enterprises. WPL considers that other models should be used either in conjunction with OVERSEER or in substitution. This matter will be addressed in detail in requested changes, primarily to the methods and rules, in Block 2.

#### **Certified Industry Schemes**

- The question from the Panel focused on delegation of RMA decision-making to Certified Industry Schemes (**Schemes**) and the role played by FEPs.
- The legal submissions for WRC focused instead on the approval process for Schemes by the WRC Chief Executive.
- With respect, this misses the points made in submissions and the Panels' questions.
- From WPL's perspective as a submitter it is unlikely that Rule 3.11.5.3 as notified could be lawful. It is unclear whether approving Schemes is a function of WRC under s 30 of the RMA or under any other enactment. It is unclear whether WRC has the ability under the RMA to delegate decision-making for the day-to-day regulation of Schemes in the manner proposed. It is unclear whether the

Final Report and decisions of the Board of Inquiry into the Tukituki Catchment Proposal, June 2014, at [449].

<sup>35</sup> WPL legal submissions para 48.3; A123/2008 at [165]-[206].

discretions required to be exercised when preparing FEPs (e.g. risk assessment of the four contaminants and the appropriateness of any proposed mitigations) are compatible with a permitted activity rule. It is unclear whether the intensity, nature, and scale of activity that will be carried on under the aegis of Schemes would meet the test for a permitted activity under s 68(3) of the RMA. It is unclear whether the proposed rule will give effect to the Vision and Strategy absent a requirement to secure resource consent. There is an (initial) evidential burden on WRC to provide some evidence of probative value to answer these points.

#### Nitrogen load to come

As noted above, none of the witnesses who have filed rebuttal or supplementary evidence challenge the evidence of Mr Williamson (for WPL), namely, that the basis for the assumed long-term groundwater load having any significant adverse effects on surface water quality is unclear and does not appear to be well-founded.

#### **Conclusions**

Beyond that, a marked up copy of the PC1 decisions requested by WPL regarding the Block 1 provisions is **attached** (Appendix 2) to assist the Commissioners, and WPL requests (as per para 268 of the WPL legal submissions) the opportunity for all parties to file closing submissions 5 working days before WRC is due to close its case.

Trem Dayn Linker SHPM

#### RJ Somerville QC / T Daya-Winterbottom

Counsel for Wairakei Pastoral Ltd

2 April 2019

#### **APPENDIX 1**

### Notes on the interpretation of protection and restoration from Puke Coal and Tukituki

- 1 Puke Coal Ltd v Waikato Regional Council [2014] NZEnvC 223, concerned resource applications for a municipal solid waste landfill on a site in Glen Afton in the Waikato River catchment. The Environment Court considered the Vision and Strategy in a holistic way at para [88] without giving priority to any particular provision.
- 2 The Court made a number of important findings. First, that protection and restoration requires something more than simply avoiding adverse effects:

[92] Implicit in the Supreme Court decision was the matter of workable practicality thus any protection or restoration must be proportionate to the impact of the application on the catchment. However, it is clear that it intends to go further than avoiding effect. We have concluded protection and restoration includes preservation from future and restoration from past damage. Restoration can only involve recreation of a past state. Thus, some element of betterment is intended.

3 Second, that in terms of restoration (involving the recreation of a past state) that "some element of betterment is intended". In particular, the Court stated (at paras [2] and [95]) that this could be achieved via "consent conditions and appropriate Management Plans". Expressly the Court found that:

[139] The scale of that is clearly a matter for the discretion of the Council relevant to each case, but we would expect that it would be interpreted as there being an opportunity wherever possible within the catchment to improve any streams or waterways and the water quality within it. This can largely be achieved by consent conditions requiring the provision of riparian planting or other methods to avoid contaminated runoff, to improve the water quality, in particular the MCI index, lower the nitrate levels, lower e-coli, and improve habitat for fish and other forms of stream taxa. [Emphasis added]

Third, based on *King Salmon* the Court found that there was no need refer back to pt 2 of the RMA and that the Vision and Strategy fitted remarkably well with the relevant statutory hierarchy under the RMA. The Court stated:

[144] In this regard, we are unable to see any conflict between the requirement of the Vision and Strategy to protect and restore the Waikato River and the provisions of Part 2 of the Act, or any of the other documents. Therefore, in terms of the analysis suggested in *King Salmon*, there is no need to give priority to other parts of Part 2 over the Vision and Strategy for Waikato River.

. . .

[146] We are unable to see anything in the Vision and Strategy for the Waikato River, adopted by legislation, which conflicts with the Act, and in fact as Mr Mulligan suggests, these documents fit remarkably well together. We suggest that this is intentional and is intended to demonstrate that within the Waikato region the restoration and protection of the river is to be regarded as a primary objective guiding policy and outcomes under the Act.

- Generally, the Supreme Court decision in *King Salmon* exerted a strong influence on the Environment Court's reasoning in *Puke Coal* (see paras [89], [90], [143], and [144]).
- Previously, the Board of Inquiry in *Tukituki Catchment Proposal* arrived at similar conclusions. For example, it noted that:
  - [9] ... Restoration and protection of the health and wellbeing of the river for future generations is seen by many as a critical issue ...
- In particular, the Board found that restoration of habitat (para [640]), restoration and regeneration of ecosystems (para [644]), restoration of traditional riparian vegetation (para [726]) were particularly important and (like Puke Coal) found that these matters could be addressed via riparian buffer zones and management plans (paras [1019] and [1188]).
- 8 More importantly, the Board relied on *King Salmon* in terms of its conclusions about what may be implied by "protection" and found that:

[756] In *King Salmon* the Supreme Court observed that the use of "promote" in s 5(1) reflects that RMA's forward looking management focus. It also made four points about the definition of "sustainable management" in s 5(2):

- the definition is broadly framed as a guiding principle to be applied by those performing functions under the RMA;
- in the sequence "avoiding, remedying, or mitigating" in subparagraph (c), avoiding means "not allowing" or "preventing the occurrence of", and the words "remedying" and "mitigating" indicate that the framers of the Act contemplated that developments might have adverse effects on particular sites which could be permitted if they were mitigated and/or remedied (assuming they were not avoided);
- the word "while" before sub-paragraphs (a), (b) and (c) means "at the same time as"; and
- the word "protection" in the phrase "use, development and protection of natural and physical resources" and the word "avoiding" in sub- paragraph (c) indicate that s 5(2) contemplates that particular environments may need to be protected from the adverse effects of activities in order to implement the policy of sustainable management.

The Court then observed that s 5 "is a carefully formulated statement of principle intended to guide those who make decisions under the RMA".

. . .

[758] We also note that the Supreme Court considered it significant that three of the seven matters of national importance identified in s 6 relate to the preservation or protection of certain areas, either absolutely or from "inappropriate" subdivision, use and development. The Court said this underscores the point that protection of the environment is a core element of sustainable management.

[Footnotes omitted and emphasis added]

In the context of the Vision and Strategy, these findings indicate that "protection" requires both that adverse effects are avoided and that further degradation is avoided i.e. that current state is maintained where water quality is acceptable in terms of Table 3.11-1, and that a range of measures may be required via consent conditions and FEPs to achieve "restoration" where Table 3.11-1 indicates that some betterment or improvement in water quality is required. Similar measures are also likely to be required to actively implement the "no degradation" or "no deterioration" principle in the Vision and Strategy notwithstanding that water quality may be acceptable in terms of Table 3.11-1.

#### **APPENDIX 2**

WPL requested amendments to PC1 (Section 42A Report recommendations) shown in red strikethrough and underline

#### 3.11 Waikato and Waipa River Catchments

#### Area covered by Chapter 3.11

This Chapter is additional to all other parts of the <u>Waikato Regional</u> Plan.

#### Legend of Map 3.11-1

Volcanic Zone lake FMU

### Map 3.11-1

- Be of a smaller scale.
- Remove light blue shading of Lake Waikare, Lake Waahi, Lake Rotongaro and Lake Whangape within the Riverine lake FMU.

#### **Background and explanation**

. . .

Water quality and National Policy Statement for Freshwater Management

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

Current water quality monitoring results show that while there is variability across the Waikato and Waipa River catchments, there are adverse effects on water bodies associated with discharges of nitrogen, phosphorus, sediment and microbial pathogens. The CSG concluded that (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.

The NPS FM directs the Waikato Regional Council to establish freshwater objectives<sup>^</sup> that give effect to the objectives of the NPS FM and describe

the state that Waikato regional communities want for fresh water in the future

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

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

#### Full achievement of the Vision and Strategy

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 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 subcatchments it will be more appropriate to focus on applying mitigation methods via consent conditions, rather than simply preventing land use change.

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

meet the targets^ and limits^ in subsequent regional plans to be developed.

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

The Stage 1 approach to reducing contaminant losses from pastoral farm land implemented by Chapter 3.11 requires:

- stock exclusion from water bodies as a priority mitigation action
- Farm Environment Plans (including those for commercial vegetable producers) that ensure industry-specific good management practice, and identify additional mitigation actions to reduce diffuse discharges by specified dates, which can then be monitored
- a property <u>or enterprise</u> scale nitrogen reference point to be established by modelling current nutrient losses from each property <u>or enterprise</u>, with no property <u>or enterprise</u> being allowed to exceed its reference point in the future and higher dischargers being required to reduce their nutrient losses <u>or the introduction of a refined sub-</u> catchment based nitrogen cap
- an accreditation system to be set up for people who will assist farmers to prepare their Farm Environment Plan, and to certify agricultural industry schemes
- Waikato Regional Council to develop approaches outside the rule framework that allow contaminant loss risk factors to be assessed at a sub-catchment level, and implement mitigations that look beyond individual farm boundaries to identify the most cost-effective solutions.

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

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

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

In the short term (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 - 80years), where further reductions in discharges of sediment, nutrients and microbial pathogens from point sources and activity on the land will be required. This second stage will focus on land suitability and how land use impacts on water quality, based on the type of land and the sensitivity of the receiving water. Methods in Chapter 3.11 include the research and information to be developed to support this.

. . .

## Section 3.11.1 Values and uses for the Waikato and Waipa Rivers

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

This section describes the values and uses for the Waikato and Waipā Rivers. The values and uses reflect the Vision and Strategy for the Waikato River. The values and uses set out below apply to all FMU's unless explicitly stated, and provide background to the freshwater objectives, and the attributes and attribute states outlined in Table 3.11-1.

#### Mahinga kai value

The ability to access the Waikato and Waipā Rivers, lakes, and wetlands and their tributaries to gather sufficient quantities of kai (food) that is safe to eat and meets the social and spiritual

- The <u>lakes</u>, rivers <u>and wetlands</u> provide for freshwater native species, native vegetation, and habitat for native animals.
- The <u>lakes</u>, rivers <u>and wetlands</u> provide for freshwater game and introduced kai species.
- The <u>lakes</u>, rivers <u>and wetlands</u> provide for cultural wellbeing, knowledge transfer, intergenerational harvest, obligations of manaakitanga (to give hospitality to, respect, generosity and care for others) and cultural

## needs of their stakeholders

- opportunities, particularly at significant sites.
- The rivers should be safe to take food from, both fisheries and kai.
- The <u>lakes</u>, rivers <u>and wetlands</u> support aquatic life, healthy biodiversity, ecosystem services, flora and fauna and biodiversity benefits for all.
- The rivers are a corridor.
- The <u>lakes</u>, rivers <u>and wetlands</u> provide resources available for use which could be managed in a sustainable way.
- The rivers provide for recreation needs and for social wellbeing.

#### **Primary production value**

The rivers support regionally and nationally significant primary production in the catchment (agricultural, horticultural, forestry). These industries contribute to the economic. social and cultural wellbeing of people and communities, and are the major component of wealth creation within the region. These industries and associated primary production also support other industries and communities within rural and urban settings.

- The rivers support a wide variety of primary production in the catchment, including dairy, meat, wool, horticulture and forestry.
- Due to the economies of scale of these industries, other service sectors, such as agritech, aviation and manufacturing, are able to operate.
- These industries combined contribute significantly to regional and national GDP, exports, food production and employment.
- The rivers and the surrounding land offer unique opportunities for many communities and industries to operate, contributing to the lifestyle and sense of community, pride and culture in rural and urban Waikato.

#### Water supply value

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

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supply. and health.	

## Mitigating flood hazards value

Flood management
systems protect land
used and inhabited
by people and
livestock.

 River engineering, including stopbanks and diversions, protect land and infrastructure from damage by flooding.

NB It would be appropriate to record the values and uses in the Section 32 Report. Delete Section 3.11.1 from PC1 as a consequence.

### 3.11.2 Objectives

#### **Objective 1**

Long-term restoration and protection of water quality for each subcatchment 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

1. By 2096 at the latest, a reduction in the discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water results in achievement of the restoration and protection of the Waikato and Waipā Rivers, such that of the 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.

### Reasons for adopting Objective 1

Objective 1 sets long term limits^ for water quality consistent with the Vision and Strategy. Objective 1 sets aspirational 80-year water quality targets^, which result in improvements in water quality from the current state monitored in 2010-2014. The water quality attributes^ listed in Table 3.11-1 that will be achieved by 2096 will be used to characterise the water quality of the different FMUs when the effectiveness of the objective is assessed.

#### Objective 2

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

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

#### Reasons for adopting Objective 2

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

#### **Objective 3**

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

Actions put in place and implemented by 2026 to reduce diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens, are sufficient to achieve the The short-term water quality freshwater attribute states in objectives from Table 3.11-1: ten percent of the required change between current water quality and the 80-year water quality attribute^targets^ in Table 3.11-1. A ten percent change towards the long term water quality improvements is indicated by the short term water quality attribute^targets^ in Table 3.11-1 are met by maintaining or improving freshwater quality within the Waikato and Waipa River catchments and their sub-catchments by 2026.

### Reasons for adopting Objective 3

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

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

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

### **Objective 4**

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

A staged approach to <u>reducing contaminant losses</u> change <u>change</u> will be provided for via policies, methods, and rules that enables people and communities to <u>undertake adaptive</u> 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 Waikate and Waipā Rivers in the short-term and 80 year 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 management approaches that will be needed in order and signalling anticipated future management approaches that will be needed to meet Objective 1.

#### Reasons for adopting Objective 4

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

In the future, a property-level allocation of contaminant discharges may be required. Chapter 3.11 sets out the framework for collecting the required information so that the most appropriate approach can be identified. Land use type or intensity at July 2016 will not be the

basis for any future allocation of property-level contaminant discharges. Therefore, consideration is needed of how to manage impacts in the transition.

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

#### **Objective 5**

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

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

- a. tangata whenua have the ability to:
  - manage their own lands and resources, by exercising mana whakahaere, for the benefit of their people; and
  - 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 lands returned via Treaty settlements are minimised; and
- improvement in the rivers' water quality and the exercise of kaitiakitanga increase the spiritual and physical wellbeing of iwi and their tribal and cultural identity.

#### Reasons for adopting Objective 5

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

#### **Objective 6**

Whangamarino Wetland/Te Whāinga 6: Ngā Repo o Whangamarino

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

#### Reasons for adopting Objective 6

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

#### 3.11.6 List of Tables and Maps

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Table 3.11-1: Short term <u>water quality limits and targets</u> and long term numerical <u>desired</u> water quality <u>states</u> targets for the Waikato and Waipā River catchments/Ngā whāinga ā-tau taupoto, tauroa hoki mō te kounga wai i te riu o ngā awa o Waikato me Waipā

Within the Waikato and Waipā River catchments, these targets <u>and desired water quality states</u> are used in decision-making processes guided by the objectives in Chapter 3.11 and for future monitoring of changes in the state of water quality within the catchments. With regard to consent applications for diffuse discharges or point source discharges of nitrogen, phosphorus, sediment and microbial pathogens, it is not intended, nor is it in the nature of water quality targets <u>and the desired water quality states</u>, that they be used

directly as receiving water compliance limits/standards. Reference should also be made to Method 3.2.4.1.

#### Explanatory note to Table 3.11-1

The tables set out the concentrations (all attributes except clarity) or visibility distance (clarity attribute) to be <u>maintained or</u> achieved by actions taken in the short term and <u>at over</u> 80 years for rivers and tributaries, and at 80 years for lakes FMUs. Where water quality is currently high (based on 2010-2014 monitoring data), the short term <u>targets</u> and 80-year <u>desired water quality states targets</u> will be the same as the current state and there is to be no decline in quality (that is, no increase in attribute concentration or decrease in clarity). Where water quality needs to improve, the <u>water quality states values</u> to be achieved at a site indicate a short term and long term reduction in concentration or increase in clarity compared to the current state.

For example, at Otamakokore Stream, Upper Waikato River FMU:

- the current state value for median nitrate is 0.740 mgNO3-N/L. The short term <u>targets</u> and 80-year <u>desired water quality states</u> targets are set at 0.740 mgNO3-N/Lto reflect that there is to be no decline in water quality
- the current state value for E.coli is 696 E.coli/100ml. The 80-year desired water quality state target is set at 540 E.coli/100ml and the short term target is set at 10% of the difference between the current state value and the 80 year desired water quality state target.

The achievement of the attribute targets in Table 3.11-1 will be determined through analysis of 5-yearly monitoring data. The variability in water quality (such as due to seasonal and climatic events) and the variable response times of the system to implementation of mitigations may mean that the targets are not observed for every attribute at all sites in the short term.

The effect of some contaminants (particularly nitrogen) discharged from land has not yet been seen in the water. This means that in addition to reducing discharges from current use and activities, further reductions will be required to address the load to come that will contribute to nitrogen loads in the water. There are time lags between contaminants discharged from land uses and the effect in the water. For nitrogen in the Upper Waikato River particularly, this is because of the time taken for nitrogen to travel through the soil profile into groundwater and then eventually into the rivers. This means that there is some nitrogen leached from land use change that occurred decades ago that has entered groundwater, but has not yet entered the Waikato River. In some places, water quality (in terms of nitrogen) will deteriorate before it gets better. Phosphorus,

sediment and microbial pathogens and diffuse discharges from land have shorter lag times, as they reach water from overland flow. However, there will be some time lags for actions taken to address these contaminants to be effective (for example tree planting for erosion control).

#### **Table 3.11-1**

Amend as per Appendix 3 of Dr Neale's EIC (copy attached).

Also amend to include current state data from Section 32 Report pp106-125.

#### **Table 3.11-2**

Amend as per Appendix 1 of Mr McKay's EIC to subdivide Subcatchment 66 into 66A and 66B (copy **attached**).

#### Map 3.11-2

Amend as per Figure 8 of Mr Williamson's EIC to subdivide Subcatchment 66 into 66A and 66B (copy **attached**).

#### Policy 14

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

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

#### **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.

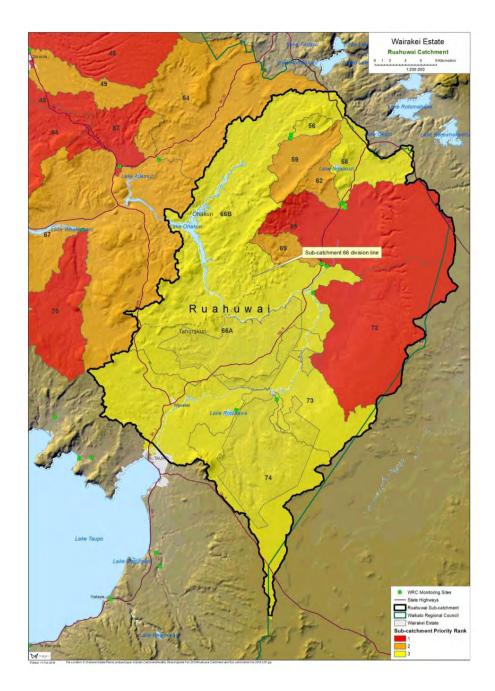


Figure 2: Location of Wairakei Estate within the Ruahuwai Sub-Catchment

#### **APPENDIX 3**

An updated version of Table 3.11-1 for 11 sites in the Upper Waikato FMU, showing amended freshwater objectives and a supplementary table of nutrient loads for limit and target setting purposes.

Objectives are amended to account for discrepancies in current state and issues associated with precision and accuracy discussed in my evidence.

Table 3.11-1 Short and long-term freshwater objectives

Clarity	(m)	Current Short 80 state term year	3.5 3.5 3.5	ND 3.0 3.5	2.3 2.5 3.0	1.9 2.0 3.0	1.6 1.8 3.0	ND 2.0 3.0	ND 2.0 3.0	0.86 0.9 1.6	1.23 1.4 1.6	1.2 1.2 1.6	1.1 1.2 1.6	2.7 2.7 3.0
95 <sup>th</sup> percentile E. coli	(E. coli/100mL)	Short 80 term year	70 70	102 102	15 15	09 09	06 06	220 200	280 280	1600 540	2000 540	20 20	540 540	100 100
95 <sup>th</sup> perc	(E. co	Current state	73	102	15	09	82	168	266	1630	1578	15	437	49
mnc	<del>-</del>	80 year	0.02	0.02	0.05	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.02	0.02
Annual maximum	ammonia (mg NH4-N/L)	Short	0.02	0.02	0.02	0.02	0.02	0.02	0.20	90:0	0.10	0.35	0.03	0.03
Annr	" <u>E</u> )	Current state	0.05	0.03	0.10	0.03	0.03	0.03	0.55	0.51	0.50	1.10	0.08	0.076
_		80 year	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.24	0.01	0.01
Annual median	ammonia (mg NH4-N/L)	Short	0.01	0.01	0.01	0.01	0.01	0.01	0.11	0.01	0.01	0.29	0.01	0.01
Ann	E Ψ)	Current state	0.01	0.01	0.01	0.01	0.01	0.01	0.32	0.02	0.02	0.86	0.01	0.01
entile		80 year	0.08	0.15	0.17	0.24	0:20	08:0	1.50	1.50	1.50	1.10	1.30	06:0
Annual 95 <sup>th</sup> percentile	nitrate (mg NO <sub>3</sub> -N/L)	Short	0.08	0.20	0.17	0.24	0.53	0.80	1.60	2.50	2.90	1.10	1.30	06:0
Annual	m)	Current state	0.08	0.25	0.17	0.24	0.47	0.82	1.66	1.66	3.01	1.13	1.33	0.88
n Automotes	(	80 year	0.04	60:00	0.08	0.08	0.40	0.45	1.00	1.00	2.40	0.92	0.74	0.77
Annual median	nitrate (mg NO <sub>3</sub> -N/L)	Short	0.04	60:00	0.08	0.08	0.45	0.50	1.26	1.27	2.60	0.92	0.74	0.77
Ann	gm)	Current state	0.04	60:0	0.08	0.08	0.45	0.50	1.29	1.30	2.60	0.92	0.74	0.77
	,m <sub>3</sub> )	80 year	12	15	17	20	20	20	20	20	20	20	20	20
Annual	dian total norus (mg/m³)	Short	12	15	20	22	85	06	100	70	80	70	140	09
	medi	Current state	12	28	20	22	93	96	101	74	82	73	144	63
an a (m <sup>3</sup> )	g/m_)	80 year	134	160	160	200	200	200	800	800	800	800	800	200
Annual median	total nitrogen (mg/m <sup>-</sup> )	Short	134	200	206	260	540	009	1800	1550	2500	1900	950	800
Ann	total n	Current state	134	200	216	256	540	625	1860	1580	2990	1955	066	810
um		80 year	NA	Ą	11	15	NA	NA	NA	NA	N	Ą	NA A	NA
Annual maximum	cnioropnyii a (mg/m <sup>-</sup> )	Short	N A	A A	11	15	N A	A A	A A	Ϋ́	NA	Š Š	A A	ΝΑ
Annu	cuo	Current state	NA	Ą	11	15	NA	NA	NA	NA	NA	Ą	Ą	NA
	a llyl	80 year	NA	Ą	3.2	3	NA	NA	NA	NA	NA	AN	NA A	NA
Annual	an cnioropi (mg/m³)	Short	Ν	Ϋ́	3.2	4	N	NA	NA	NA	NA	AA	A	Ν A
Annual median chlorophyll a (mg/m³)	Bed Hed	Current state	NA	NA	3.1	7	NA	A	NA	NA	AN	A A	A	NA
Site			Waikato River (Ohaaki)	Waikato River (Tahorakuri)	Waikato River (Ohakuri)	Waikato River (Whakamaru)	Pueto Stm Broadlands Rd Br	Torepatutahi Stm Vaile Rd Br	Waiotapu Stm Homestead Br Rd	Mangakara Stm (Reporoa) SH5	Kawanui Stm SH5 Br	Waiotapu Stm Campbell Rd Br	Otamakokore Stm Hossack Rd	Whirinaki Stm Corbett

NA – Attribute is not applicable to the sub-catchment

ND – No data for the sub-catchment

Supplementary table to Table 3.11-1 showing nutrient loads for limit and target setting purposes.

	Site	TN load (t/yr)			TP load (t/yr)		
		Current state	Short term	80 year	Current	Short term	80 year
73	Waikato River (Ohaaki)	760	TBC	TBC	68	TBC	TBC
66a	Waikato River (Tahorakuri)*	1600	TBC	TBC	170	TBC	TBC
66b	Waikato River (Ohakuri)	1200	TBC	TBC	120	TBC	TBC
67	Waikato River (Whakamaru)	1700	TBC	TBC	140	TBC	TBC
74	Pueto Stm Broadlands Rd Br	85	TBC	TBC	15	TBC	TBC
72	Torepatutahi Stm Vaile Rd Br	93	TBC	TBC	17	TBC	TBC
65	Waiotapu Stm Homestead Br Rd	470	TBC	TBC	25	TBC	TBC
69	Mangakara Stm (Reporoa) SH5	36	TBC	TBC	2	TBC	TBC
62	Kawanui Stm SH5 Br	38	TBC	TBC	2	TBC	TBC
58	Waiotapu Stm Campbell Rd Br	110	TBC	TBC	4	TBC	TBC
59	Otamakokore Stm Hossack Rd	35	TBC	TBC	5	TBC	TBC
56	Whirinaki Stm Corbett Rd	7	TBC	TBC	1	TBC	TBC

<sup>\*</sup> Loads for Waikato River (Tahorakuri) based on best available data (i.e. not monitored by WRC).

TBC – to be confirmed in Block 3 evidence when an alternative approach is presented.

Table 3.11-2: List of sub-catchments showing Priority 1, Priority 2, and Priority 3 sub-catchments/Te rārangi o ngā riu kōawaawa e whakaatu ana i te riu kōawaawa i te Taumata 1, i te Taumata 2, me te Taumata 3 If more than fifty percent of a farm enterprise is in a particular sub-catchment, then the dates for compliance for that sub-catchment apply.

Sub-catchment identifier	Sub-catchment number	Priority
Mangatangi	2	1
Whakapipi	3	1
Whangamarino at Jefferies Rd Br	8	1
Whangamarino at Island Block Rd	10	1
Opuatia	11	1
Waerenga	12	1
Waikare	13	1
Matahuru	14	1
Whangape	16	1
Mangawara	17	1
Awaroa (Rotowaro) at Harris/Te Ohaki Br	18	1
Waikatoat Huntly-Tainui Br	20	1
Kirikiriroa	23	1
Waikato at Horotiu Br	25	1
Waikato at Bridge St Br	27	1
Waitawhiriwhiri	28	1
Mangakotukutuku	30	1
Mangawhero	35	1
Moakurarua	42	1
Little Waipa	44	1
Pokaiwhenua	45	1
Mangamingi	48	1
Waipa at Otorohanga	51	1
Waitomoat Tumutumu Rd	52	1
Mangapu	53	1
Mangarapa	55	1
Mangaharakeke	57	1
Mangarama	61	1

Mangaokewa	63	1
Waikato at Waipapa	64	1 19
Waiotapu at Homestead	65	1
Waipa at Mangaokewa Rd	68	1
Waipapa	70	1
Torepatutahi	72	1
Waikato at Tuakau Br	4	2
Waikato at Port Waikato	6	2
Waikato at Rangiriri	15	2
Awaroa (Rotowaro) at Sansons Br	19	2
Firewood	21	2
Komakorau	22	2
Waipa at Waingaro Rd Br	24	2
Mangaone	31	2
Waipa at SH23 Br Whatawhata	34	2
Kaniwhaniwha	36	2
Mangapiko	38	2
PuniuatBartonsCornerRdBr	40	2
Waipa at Pirongia-Ngutunui Rd Br	43	2
Waitomo at SH31 Otorohanga	46	2
Whakauru	49	2
Tahunaatara	54	2
Otamakokore	59	2
Waipa at Otewa	60	2
Kawaunui	62	2
Waikato at Whakamaru	67	2
Mangakara	69	2
Mangakino	71	2
Mangatawhiri	1	3
Awaroa (Waiuku)	5	3
Ohaeroa	7	3
WaikatoatMercerBr	9	3
L	l .	l .

Ohote	26	3
Mangaonua	29	3
Karapiro	32	3
Waikato at Narrows	33	3
Mangauika	37	3
Mangaohoi	39	3
Waikato at Karapiro	41	3
Mangatutu	47	3
Puniu at Wharepapa	50	3
Whirinaki	56	3
Waiotapu at Campbell	58	3
Waikato at Ohakuri	66	3
Waikato at Ohaaki	73	3
Pueto	74	3

# Consequential amendment arising from the creation of sub-catchment 66A and 66B:

Waikato at Karapiro	41	3
Mangatutu	47	3
Puniu at Wharepapa	50	3
Whirinaki	56	3
Waiotapu at Campbell	58	3
Tahorakuri	66A	3
Ohakuri	66B	3
Waikato at Ohaaki	73	3
Pueto	74	3

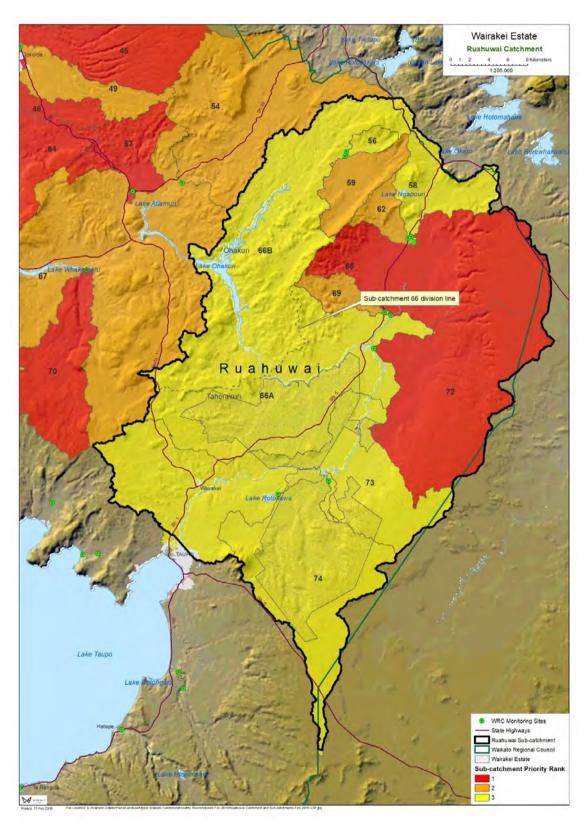


Figure 8. Subdivision of Sub-catchment 66.