

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Waikato Regional
Plan Change 1: Waikato and Waipā
River Catchments to the Waikato
Regional Plan

**SUPPLEMENTARY EVIDENCE - RESPONDING TO HEARINGS PANEL QUESTIONS TO
COUNCIL**

Matthew McCallum-Clark

DATED 11 March 2019

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INTRODUCTION

1. My name Matthew McCallum-Clark. I have already provided evidence dated 15 February 2019 for this Hearing. I am the primary author of the s42A reports and have the qualifications and experience set out in paragraphs 3 and 4 of my previous evidence.
2. I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014, and agree to comply with it. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions which I express.

PURPOSE

3. The purpose of this supplementary evidence is to provide responses to the following questions from the Hearings Panel to Council dated 19 February 2019:
4. This supplementary evidence provides responses to the following questions:
QUESTION 4. Documents we must: give effect to, not be inconsistent with, have regard to, and take into account
QUESTION 6: National Policy Statement for Freshwater Management 2014
QUESTION 8. Coastal and River interface
QUESTION 9. Sub-catchment based planning approach
QUESTION 10. Rules - Section 9 and section 15
QUESTION 11. Overseer
QUESTION 12. Certified Industry Schemes
QUESTION 14. Section 42 A report
QUESTION 15. Sub-catchment based planning approach

QUESTION 4: Documents we must: give effect to, not be inconsistent with, have regard to, and take into account

5. The Panel has asked the following question:
The Panel is aware that there are a number of planning documents that we need to either give effect to, not be inconsistent with, have regard to, and take into account.

We must give effect to:

- *The National Policy Statement for Freshwater Management;*

- *The New Zealand Coastal Policy Statement;*
- *The National Policy Statement on Renewable Energy Generation;*
- *The National Environmental Standard for Sources of Human Drinking Water;*
- *The Vision and Strategy; and*
- *The Regional Policy Statement.*

We must not be inconsistent with:

- *The Regional Coastal Plan.*

We must have regard to:

- *The Waikato Conservation Management Strategy (2014 - 2024);*
- *Auckland Waikato Fish and Game Sports Fish and Game Bird Management Plan.*

We must take into account:

- *the various Iwi Management Plans that are in place.*

There may well be other documents.

While there is commentary on some of the documents listed above, the Panel does not recall seeing any commentary on some of the other documents in the section 32 analysis or the 42A report.

We request the Council identify the relevant documents that it considers we need to address, and provide a commentary on those documents that have not been addressed in either the section 32 analysis or the 42A report.

RESPONSE

6. From the list of documents provided in question 4, there are a number that have been addressed in in the Section 32 and Section 42A reports, being:

- The National Policy Statement for Freshwater Management
 - Section 32 para A.2.2.1 pg 12
 - Section 42A para 3.2.1 pg 8
- The National Policy Statement on Renewable Energy Generation
 - Section 32 para A.2.2.3 pg 13 & Part E.9 pg 234
- The National Environmental Standard for Sources of Human Drinking Water
 - Section 32 para A.2.2.3 pg 13 & Part E.9 pg 234

- The Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato
 - Section 32 para A.2.3.2 pg 13
 - Section 42A para 3.3.2 pg 11
 - The Waikato Regional Policy Statement
 - Section 32 para A.2.3.3 pg 14
 - The Waikato Conservation Management Strategy
 - Section 32 para A.2.3.6 pg 16
 - Iwi Management Plans
 - Section 32 para A.2.3.5 pg 15
7. In addition, the National Environmental Standard for Plantation Forestry is addressed at para 3.2.3 pg 9 of the Block 1 s42A Report.
8. The Section 32 provides an outline of the New Zealand Coastal Policy Statement, however it is overly brief. Also, the Waikato Regional Coastal Plan and the Auckland Waikato Fish and Game Sports Fish and Game Bird Management Plan are absent from both the s32 and s42A reports. It has also been identified that the Ngati Haua Environmental Management Plan is absent from the Section 32 list of Iwi Management Plans (Para A.2.3.5 pg 15) as it was made available in September 2018.
9. All of these documents are relevant documents that must be considered. A commentary on these documents is as follows:

New Zealand Coastal Policy Statement

10. Coastal management is guided by the provisions of the Resource Management Act 1991 and the New Zealand Coastal Policy Statement. The NZCPS sets out objectives and policies to address national matters in the coastal environment and in order to achieve the purpose of the RMA. Regional and district plans must give effect to the NZCPS. The coastal environment includes the area from Mean High Water Springs seaward to 12 nautical miles as well as an area inland determined by each local authority, and a short distance upstream of major rivers/estuaries.
11. The NZCPS sets out Objectives which address matters relating to:
- Coastal hazard risks
 - Recognition of international obligations
 - Development providing for communities wellbeing and maintaining and enhancement of public open space qualities and recreation opportunities

- Safeguarding the coastal environment and sustaining its ecosystems.
- Preserving natural character and protection of natural features and landscape values.
- Taking into account the Treaty of Waitangi, recognising tangata whenua as kaitiaki and providing for tangata whenua involvement in the management of the coastal environment.

12. There are a range of policies in the NZCPS which address the following matters:

- Recognise the extent and characteristics of the coastal environment
- Take into account the Treaty of Waitangi
- Adopting a precautionary approach where there is uncertainty
- Providing for the integrated management of natural and physical resources
- Consideration of effects on land or water in the coastal environment that is managed under other Acts
- Development and other activities in the coastal environment and consideration of development when preparing plans and policy statements
- Recognition of: aquaculture to the well-being of people and communities; a sustainable transport system; the need for public open space and walking access; and control of the use of vehicles and activities that may cause harmful aquatic organisms to be released
- Protection of: indigenous biological diversity; natural features and landscapes; historic heritage; and surf breaks of national significance
- Enhancement of water quality
- The management of: discharges of contaminants; factors of coastal hazard risk; sedimentation
- Monitoring and reviewing the effectiveness of the NZCPS
- Removal of restricted coastal activities

Waikato Regional Coastal Plan

13. The Waikato Regional Coastal Plan became operative in 2005, with variations made operative in 2007, 2011 and Plan Change 1 to the coastal plan being made operative in 2011. This Plan is currently in the review stage alongside the operative Waikato Regional Plan. This Plan contains objectives, policies and methods to manage the allocation and use of coastal resources. It was determined during the development of PC1 that the part of the main stem of the Waikato River that is in the coastal marine area (approximately 8kms upstream from the mouth) will be addressed in coastal plan reviews.

14. The Waikato Regional Coastal Plan provides for: natural character, habitat and coastal processes, water quality; structures; marine farming; marinas, foreshore and/or seabed disturbances, natural hazards, public access; air quality and noise; and surface water activities.

Auckland Waikato Fish and Game Sports Fish and Game Bird Management Plan

15. Section 26(Q)(e)(iii) of the Conservation Act requires each regional Fish and Game Council to prepare a sports fish and game bird management plan. The purpose of a management plan is to manage, maintain and enhance the sports fish and game bird resource and maximise the recreational interests of anglers and hunters. Statutory authorities such as local authorities and central government agencies in the region must have regard to these plans under Section 66 (2)(c)(i) of the RMA once approved and recognise the priorities and intentions set out in the plan.
16. Auckland/Waikato Fish and Game is the relevant regional fish and game council to the PC1 area. This management plan intends to maintain and enhance the sustainability of fish and game resources and protection of such habitats and also has regard to the effects of this management on other natural resources and resource users. The plan also seeks to maximise recreational angling and hunting opportunity through: encouraging participation and access; gaining acceptance of recreation; ensuring availability of the resource; providing governance; providing planned and coordinated management of resources; and ensuring liaison with those who provide the opportunity, is maintained.

Ngāti Hauā Iwi Environmental Management Plan

17. Under s66 (2A) of the RMA, iwi management plans recognised by an iwi authority must be taken into account in the preparation of a regional plan. The Ngāti Hauā Environmental Management Plan came into effect in September 2018 and therefore has not been considered in the development of Plan Change 1. The purpose of this plan is to express and articulate iwi values, frustrations, aspirations and position statements in relation to the environment. It includes the health and wellbeing of the land, air, water, wetlands and fisheries; urban development; cultural heritage such as waahi tapu and taonga tuku iho and customary activities; and the use and development of Māori land, including marae, urupa and papakainga.
18. Copies of any of the above documents are available, as is any further, more specific analysis of the provisions.

QUESTION 6: National Policy Statement for Freshwater Management 2014

19. The Panel has asked the following question:

Could Council please identify the Freshwater Objectives for the purposes of the NPSFM?

RESPONSE

20. The NPS-FM defines a freshwater objectives as:

“Freshwater objective” describes an intended environmental outcome in a freshwater management unit.

21. The NPS-FM provides further detail on how freshwater objectives are to be developed. While the definition is undoubtedly correct, the policy guidance on how they are to be developed and what they include is far more nuanced.

22. Plan Change 1 does not specifically identify what the “freshwater objectives” are. In my opinion this is understandable, given that PC1 is a traditional RMA plan, with issues statements, objectives, policies, methods, rules and associated appendices, definitions and maps, overlaid with the requirements of the NPS-FM. In my opinion, Objectives 1 and 3 are “freshwater objectives” in terms of the NPS-FM, given their reference to the short and long term water quality states in Table 3.11-1.

QUESTION 8: Coastal and River interface

23. The Panel has asked the following question:

The Department of Conservation in its submissions has set out (in part):

2.3 Coastal Environment & New Zealand Coastal Policy Statement 2010.

21. The National Policy Statement for Freshwater Management states that the management of coastal water and fresh water requires an integrated and consistent approach. The New Zealand Coastal Policy Statement (NZCPS) itself acknowledges that one of the key issues facing the coastal environment is “poor and declining water quality in many areas as a consequence of point and diffuse sources of contamination, including stormwater and wastewater discharges”.

22. As notified, proposed plan change 1 does not give appropriate consideration to the relationship between freshwater quality and the water quality of the coastal environment.

23. Objective 1 of the NZCPS is particularly relevant to water quality in the coastal environment. It states “To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by... Maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity”.

24. The proposed plan change must give effect to the NZCPS. Given that the ultimate receiving environment for water from the entire Waikato and Waipā River catchments is the coastal environment at Port Waikato, the proposed plan change therefore must address activities that affect water quality in the coastal environment. (underling is our emphasis).

Does the Council agree with the DOC submission; to what extent does the Council agrees that the NZCPS is relevant to the Panel's consideration of PC1, and how has PC1, or any likely recommended amendments to it, addressed this issue?

RESPONSE

24. The Council agrees with many of the factual statements in the DoC submission, but does not agree with the statement that: “As notified, proposed plan change 1 does not give appropriate consideration to the relationship between freshwater quality and the water quality of the coastal environment.”
25. The Council agrees that the NZCPS is relevant to the Panel's consideration of PC1. The geographic scope of PC1 is from Huka Falls to where the Waikato River meets the sea at Port Waikato, the entire length of the Waipa River and including all land draining into the Waikato and Waipa Rivers and their tributaries. This is the Vision and Strategy area. However, the objectives, policies and rules of PC1 do not apply to the Coastal Marine Area, because that area is managed by the Regional Coastal Plan¹.

¹ Report to the Collaborative Stakeholder Group- for information - Healthy Rivers Wai Ora and the Coastal Marine Area - Emma Reed, WRC
- CSG14

26. The Vision and Strategy covers the CMA area of the Lower Waikato River. Where there is conflict between the Vision and Strategy and the NZCPS, the Vision and Strategy prevails. Plan Change 1 has been developed to give effect to the Vision and Strategy.
27. The NPSFM requires councils to have regard to the connections between freshwater bodies and coastal water when establishing freshwater objectives and targets and limits², and to provide for the integrated management of the effects of the use and development of land and fresh water on coastal water³.
28. As PC1 seeks to improve the degraded water quality in the catchment through managing discharges of nitrogen, phosphorus, sediment and microbial pathogens, PC1, by default, gives effect to Objective 1 of the NZCPS. This is because the setting of targets and limits, and controlling land management practices to improve river water quality will contribute to improving, at least in part, any coastal water quality and habitat issues that might currently exist.

QUESTION 9: Sub-catchment based planning approach

29. The Panel has asked the following question:

A number of submitters (e.g. Wairakei Pastoral Ltd - WPL) have raised the issue of whether a sub-catchment management approach is a more appropriate response than that proposed in PC1.

The Panel's current understanding is that PC1 is focused on preventing land use change where the 4 contaminants are not sufficiently managed, whereas it may be possible that changes in the management approach could also achieve a better environmental outcome without restricting land use change.

As set out in the WPL submission (paragraph 10):

"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".

² NPSFM Policy A1 (a)(iii)

³ NPSFM Policy C2 (b)

The Panel accepts this will be a specific hearing topic and will be the subject of mediation and/or expert conferencing. However, to set a context for the future hearings, how does the Council respond to this suggestion?

RESPONSE

30. The Council is currently of the view that the sub-catchment based approach is best suited as a non-regulatory implementation method, to assist farmers to understand quantum and causes of water quality decline in their sub-catchment, and which will inform individual farmers' FEP development. The Council is actively exploring the use of sub catchment planning in this non-regulatory context.
31. I am currently unconvinced that the sub-catchment approach could be used to set enforceable property scale limits that would be equivalent to land managed under a resource consent applying to a single property, and consider that many of the sub-catchment approaches advanced have other practical implementation issues in a regulatory framework, but would welcome further clarification from submitters on this matter.
32. It is noted that the term sub-catchment approach is used by different submitters to mean different things. I am concerned that some of the sub-catchment based approaches proposed seek to enable landowners to implement mitigations to reduce one kind of contaminant losses in order to justify increased losses of other contaminants. This approach would likely be counterproductive to achieving the objectives of PC1, the NPS-FM and the Vision and Strategy, particularly in relation to a catchment-wide view.
33. Finally, I note that since PC1 was notified, the 2017 amendments to the NPS-FM strengthen the 'whole catchment' view, particularly by incorporating the concept of ki uta ki tai (from the mountains to the sea) in Policy C1.

QUESTION 10: Rules - Section 9 and section 15

34. 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 -

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 activitiesand the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial

pathogens onto into 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?

RESPONSE

35. As notified, PC1 contains rules that are of a ‘hybrid’ nature, with both land use and discharge elements. In the draft Block 2 report, this issue is identified as problematic, and it is recommended that the rules be set primarily as section 9 land use rules, with a separate ‘catch-all’ rule to authorise the associated diffuse discharges (where the land use is authorised). It is acknowledged that suggestions for a framework for Commercial Vegetable Production rules may take a different approach.
36. As noted above, the recommendation is likely to be to shift to a section 9 land use consent framework. Pursuant to section 134, these ‘attach to the land’. It is not envisaged that the discharge component (associated with the particular land use) would be able to be transferred.
37. The NRP and FEP are also inherently related to the land use consent. While it possible that an FEP could be prepared by either the land owner (ie the consent holder) or some other party such as a leasee, the FEP still represents a tailored assessment of the actions required to reduce contaminant loss from a particular piece of land, under a particular farming activity. The landuse consent would authorise the use of land subject to the land use being undertaken in accordance with an approved FEP. It follows therefore that there could only be one “current” FEP at any time, and that the FEP could not be automatically transferred to a different property without further consideration of

the specific contaminant loss risks on that property, and re-approval of the FEP by a certified person.

QUESTION 11: Overseer

38. The Panel has asked the following question:

The use of Overseer as a tool to establish and then report nitrogen losses from land use is a key aspect of the approach to the management of nitrogen adopted in PC1.

A significant number of submissions have been received in relation to Overseer - including that it is not a reliable regulatory tool for reporting nitrogen losses, and it was designed as an information tool.

Given the range of submissions and the recent (late 2018) report from the Parliamentary Commissioner for the Environment's report on Overseer - what 'position' is the Council likely to take on the use of Overseer in PC1?

RESPONSE

39. I consider that Overseer is best used in a 'relative' sense, rather than an 'absolute' sense. Overseer can therefore best be understood as a relative index of nitrogen leaching. For example the model can provide a good indication of the likelihood that a farm management change may increase or decrease N leaching. However, the model is less able to quantify the exact leaching amount from a particular property, or the relative change from a different farming system on the same property, such as changing from cropping to dairy support.

40. I consider that Overseer provides a valuable decision support tool for estimating the relative N loss between different farm management scenarios. Overseer has a useful role to play in assisting farmers to demonstrate that they are farming according to Good Farming Practice principles, and that their nutrient loss is either static, or trending downwards.

41. However, I hold concerns about the enforceability of any absolute or relative use of outputs from Overseer. I consider that the most enforceable use of Overseer would be to use the model to evaluate alternative farm management scenarios, and then use the

key input parameters to Overseer from the preferred management scenario to define enforceable input based standards.

QUESTION 12: Certified Industry Schemes

42. The Panel has asked the following question:

A number of submitters have raised the vires of the use of "Certified Industry Schemes" and consider the rules (eg 3.11.5.3) essentially delegate a WRC function to industry without proper process, and effectively creates and enables an alternative resource management bureaucracy.

Given the significance of the use of Certified Industry Schemes as part of the FEPs, what 'position' is the Council likely to take on the use of Certified Industry Schemes in PC1?

RESPONSE

43. I have not yet reached a firm position on the role of the CIS provisions in PC1.
44. The Council's implementation planning has assumed nearly half the farms in the catchment will be members of a CIS. The removal of the CIS provisions would therefore double the implementation workload of the Council, and raises questions about whether there would be sufficient certified professionals available to meet the deadlines for NRPs and FEPs set out in PC1.
45. However, it is also difficult to see justification for a simpler authorisation process under PC1 just as a result of being a member of an industry programme, especially given that the opportunity to join a CIS is not likely to be available to all farmers in every sector.
46. I am currently leaning towards the view that a CIS may be better aligned with providing independent services to farmers rather than providing farmers with an authorisation pathway. These services may include assisting with preparing and implementing NRPs and FEPs, and potentially with independent FEP auditing services, provided conflict of interest perceptions can be effectively managed

QUESTION 14: Section 42A report

47. The Panel has asked the following question:

The Panel accepts that this Section 42A report deals with the Overview and Context, and Overall Directions; and that the detail of recommended amendments to the policies and rules will be in subsequent Block 2 and 3 section 42A reports - noting that Mr McCallum-Clark's evidence states the reporting for Block 2 is now largely complete, with review, integration of different recommendations and cross-checking underway.

However, at this stage of the PC1 process, it will be very helpful to have a more detailed understanding of the potential or likely recommended changes to some of the key provisions in PC1 that have been 'signalled' in the section 42A report.

Paragraphs 132, 133 and 134 of the report (below) suggest a significant shift to some provisions.

132 Officers broadly agree with a number of the submitters who consider that the PC1 regime with respect to N is costly, inflexible and potentially has a range of unintended consequences. Officers are likely to recommend, in subsequent sections of this Report that are yet to be published, that the following adjustments to the management of N are made:

- Increase clarity that no individual can expect to cause an increase in losses or any of the four contaminants, and that the direction of travel is improvement;*
- The NRP is maintained as a tool, but for some farming systems it will need to be prepared on a one-off basis and subsequently only on demand;*
- Reducing the need to use Overseer and NRPs for activities that are currently not well represented in the Overseer algorithms, including horses, various less common livestock, and complex farming systems such as commercial vegetable growing;*
- Maintaining the need for, and possibly increasing, reductions in losses from properties with very high levels of N loss at the time of notification of PC1 and signalling expectations of reductions from those with above-average losses; and*
- Greater reliance on controls on farming activities through FEPs, particularly by requiring adherence to Good Farming Practices (GFP), demonstration that existing farming activities are not intensifying, and continued specific limitations on significant land use intensification.*

133 The analysis, reasoning and detailed recommendations will be set out fully in Section C1 of the report, which is yet to be published.

134 Two particular elements are worthy of additional comment at this early stage. The first relates to moving towards an explicit requirement for the adoption of GFP, formerly known as Good Management Practices or GMP. As notified, PC1 relies on FEPs to identify specific mitigation actions and timeframes within which they need to occur. Early testing of this framework with some resource consent applications has identified some shortcomings, and at the same time nationally, and in other regions, there is an increased emphasis on the

GFP framework. In the Officers' view this GFP framework has a number of advantages, at a philosophical level in setting outcomes with continuous improvement, in terms of national research and consistency, and in terms of ongoing flexibility. It is only on the basis of widespread adoption of GFP, with positive changes to ensure public confidence in the farming improvements that lead to a reduction in the discharges of all four contaminants, that a reduction of the emphasis on N can be suggested. The second relates to Certified Industry Schemes. As notified, PC1 provides for farming to be a permitted activity, provided the farming activity is "registered to a Certified Industry Scheme". Schedule 2 sets out the criteria for Certified Industry Schemes. Several submitters have questioned the legality of the Certified Industry Scheme provisions, others have sought a 'level playing field' for all farming activities, and others have questioned how WRC will provide oversight and enforcement. Officers note the management efficiencies of farming sector involvement and grouping multiple farming activities under a single management framework, but question whether the Certified Industry Scheme framework provides for improved practices and reduction in discharges, and whether the permitted activity framework meets the requirements of section 70 of the RMA. (underling is our emphasis)

Can Mr McCallum-Clark further explain these likely 'shifts' so that the Panel and Submitters better understand the detail and implications of these changes now as context for the hearings to come?

Also, on page 19 of the s42A report, the number of sub-catchments, inter alia, where nitrate nitrogen concentrations variously does not meet the MAV and is between half MAV and MAV are listed. Can the Panel please be provided with both a list of the sub-catchments in each category and a colour coded map showing those catchments.

RESPONSE

S42A 1: Expanding on Block 2 recommendations

48. The structure of the Block 2 report is as follows:

C1. Diffuse discharge management

- Overseer
- Policy 1 and the overall rule framework
- Policy 2 and Farm Environment Plans
- Reductions (75th percentile)
- Land use change
- Other relevant policies and schedules

C2. Cultivation, slope and setbacks

C3. Certified Industry Schemes

C4. Stock exclusion

C5. Māori Treaty Settlement Land

C6. Urban/point source discharges

49. The reports are still under a review process and there may yet be changes, so the below should be taken as INDICATIVE ONLY. At the commencement of each section of the Block 2 report there is a 'half-page' summary of the key issues and recommendations for that section. Set out below is a collated copy of the present, INDICATIVE ONLY half-page summaries.

C1. Diffuse discharge management

- Overseer
50. Plan Change 1 relies on Overseer to model nitrogen leaching from farmed properties and is referenced in a number of provisions in PC1.
51. The main issue raised in submissions is about whether Overseer should be used in PC1, and if so, how. There is currently a lot of discussion in New Zealand about how Overseer should be used in regulation. Two important recent reports about this are the Parliamentary Commissioner for the Environment's "Overseer and regulatory oversight" (2018) and Enfocus's "Using Overseer in water management planning" (2018). These discussions are influencing how WRC staff consider Overseer should be used in PC1.
52. The general conclusion from these discussions is that Overseer can be used in regulation in a relative sense but not an absolute sense. Overseer can be used to give a good indication of whether a change in practice on a particular farm, is likely to increase or decrease nitrogen leaching from that farm. It cannot be used to identify how much nitrogen is actually leaching from the farm.
53. Beyond this 'big question' of how Overseer should be used, a range of other matters are addressed in this section including:
- Can alternative models to Overseer be used?
 - How should PC1 address farm specific matters that are not well modelled by Overseer (vegetable growing systems are a particular issue in this respect)?
 - How should PC1 respond to the issue of different versions of the Overseer model that can give different nitrogen leaching outputs for the same inputs?
54. Key recommendations include:

- A. Overseer is the best tool the Council has for managing nitrogen leaching from most farms
 - B. Although PC1 provisions are mostly consistent with current thinking about how Overseer is best used in regulation, some changes are needed to improve alignment.
 - C. Overseer can be used to establish an NRP for most farms, and to inform the development of the property's FEP.
 - D. Currently, the Overseer derived NRP should not be a point of compliance, but a tool to ensure farm changes described in the FEP do not result in increasing nitrogen leaching. Overseer inputs used to develop a property's NRP could inform consent conditions, which would then be the points of compliance for the property.
 - E. Because the Overseer derived NRP should currently not be used as a point of compliance, the NRP limit in Rule 3.11.5.2 (15 kg N/ha/yr) is recommended to be changed to a stocking rate limit.
 - F. A number of changes are needed to Schedule B, which describes how Overseer is to be used, to clarify requirements, to respond to developments in the Overseer system, and to better reflect recent thinking about how Overseer should best be used.
- Policy 1 and the overall rule framework
- 55. Plan Change 1 includes two policies (Policies 1 and 2) that provide specific direction on the management of diffuse discharges of nitrogen, phosphorus, sediment and microbial contaminants. Plan Change 1 includes a set of rules and schedules to manage farming activities, which will mean that most farming activities need to complete a farm environment plan (FEP), implement a range of mitigations and a significant proportion will need to obtain a resource consent. This will be stated over the next several years, so that the FEPs and resource consents are in place by 2026.
 - 56. The submissions are extensive and detailed – almost all submitters are involved. The majority of submissions are in opposition to the level of control sought by PC1. Many submitters want the policies and rules substantially changed or removed as a whole.
 - 57. Key recommendations include:
 - A. Shifting the focus of the rules from management of nitrogen, to management of all four contaminants – a clear focus on maintaining or reducing levels of all four contaminants over time is recommended.

- B. Consolidating relevant parts of Policy 1, Policy 2 and Policy 6 into a revised Policy 1 that provides direction for all farming activities.
- C. Changing to a simpler rule set that firstly separates the hybrid-style rules of PC1 into separate rules and secondly has a clear 'cascade' from permitted through to non-complying, depending on the ability to meet clear criteria.
- D. Maintaining the need to collect and provide information to the WRC, including outputs from Overseer or other models.
- E. Recognising that the implication of reduced reliance on a simple threshold, such as a nitrogen reference point (NRP), due to concerns about Overseer accuracy, has implications for the rules such that more discretion and assessment of individual applications needs to be made, along with greater reliance on the quality, implementation and auditing of FEPs.
- F. Not making specific recommendations on changing the timeframes for implementation, given uncertainties over when the relevant rules will be made operative.

- Policy 2 and Farm Environment Plans

- 58. Farm Environment Plans (FEPs) are a key component of PC1. They are intended to guide the adoption of a range of farm-specific actions to reduce contaminant losses. In parallel, there is progress, across the country on better defining systems and outcomes for FEPs.
- 59. PC1 includes independently prepared and certified FEPs as a requirement for almost all farms in most of the rules, and sets out in detail (in Schedule 1) the content of FEPs. The intended outcomes from FEPs and monitoring of implementation are not clearly specified.
- 60. The submissions are extensive and wide ranging, across the full spectrum of deletion of the whole framework, through substantial changes to both philosophical approaches to FEPs and detailed content. WRC has been progressing work on how FEPs are best managed, and this has led to some significant changes in approach
- 61. Key recommendations include:
 - A. Shifting the focus of Policy 2 to be a specific policy on FEPs.
 - B. Maintaining, and strengthening, FEPs as a core methodology in PC1 to deliver reductions across all of the four contaminants.

- C. Identifying that the more widely recognised 'good farming practices' framework is an important foundation for FEPs, in terms of guiding their development, providing a more outcomes focussed approach, and checking on implementation.
- D. Requiring checks on implementation (audits) to give more confidence to the Council, the community and farmers that improvements in farm practices are being made.
- E. Not making any recommendations on Schedule 1 at this time, so that it can be redrafted by experts.

- Reductions (75th percentile)

- 62. Plan Change 1 includes a number of provisions that details required reductions in nitrogen discharges by emitters with losses in the top quartile. Policy 8 sets out that those farms with losses above the 75th percentile nitrogen leaching value will be prioritised for submitting FEPs. This is implemented through rules 3.11.5.3 and 3.11.5.4. Schedule 1 sets out the requirements of FEPs and includes the need for those farmers in the top quartile to describe the actions, timeframes and other measures to be undertaken to reduce their losses to below the 75th percentile nitrogen leaching value.
- 63. A large number of submissions were received on the required reductions. Submitters have sought the deletion or extension of reductions, greater clarity on the relationship between the 75th percentile nitrogen leaching value and the rules and amendments to the definition. Many submitters are concerned regarding the calculation of the value and its reliance on Overseer data, while others consider the implementation of reductions will significantly affect productivity. Implementation challenges regarding the availability of experts to prepare FEPs and determine actions to reduce nitrogen losses are also concerns.
- 64. Key recommendations include:
 - A. Maintaining, and strengthening, provisions that require those properties with the highest losses to reduce the most and recognising the need for all those with average losses to reduce, possibly beyond the reductions in losses derived from adopting GFP.
 - B. If Overseer-based NRP numbers are considered robust enough, clarifying the definition and use of the 75th percentile.
 - C. Making Policy 1 more explicit about expectations for reductions from those with above average losses, and particularly those above the 75th percentile.

- Land use change
65. PC1 includes Policy 6 and Rule 3.11.5.7 that make significant intensification of land use (“land use change”) a non-complying activity and provides policy direction that only applications that reduce contaminant losses will be granted. This rule is an ‘interim rule’ that provides a firm limit on intensification.
 66. There are many hundreds of submissions on this rule, largely in opposition. Most submissions seek an ability to further intensify and change land use and oppose the way it locks low-discharging activities into a low-discharging future with no land development opportunity.
 67. Key recommendations include:
 - A. Substantial wording changes, but maintaining the fundamental element of significant land use intensification being a non-complying activity.
 - B. Including the key components of Policy 6 into Policy 1, to provide certainty to all applicants that contaminant losses are expected to decrease (and consequently deleting Policy 6).
 - C. Recommending the removal of the 2026 end-date and non-notification clause associated with the rule.

C2. Cultivation, slope and setbacks

68. PC1 includes a permitted activity rule for ‘low-intensity’ pastoral farming. The conditions of this rule include:
 - a. No part of the property over 15 degrees slope is cultivated or grazed; and
 - b. no winter forage crops are grazed in situ; and
 - c. specified setbacks from water bodies are met.
69. Sediment loss, particularly in the Waipa catchment, is a significant issue for the achievement of the Vision and Strategy and PC1 objectives. The submissions are extensive, with the majority in opposition to the controls. Most low-intensity farming is carried out in hill country. The net result of the permitted activity conditions is likely to mean that (very) few properties would qualify as a permitted activity. If the conditions are not able to be met, the farming activity becomes a restricted discretionary activity.
70. Key recommendations include:
 - A. Recommending the Hearing Panel consider increasing the cultivation and grazing thresholds, but not beyond 25 degrees.

- B. Recognising that grazing forage crops is an inherently high-risk activity for the loss of all four diffuse contaminants, but that the Hearing Panel may wish to consider being more enabling, subject to strong minimum standards relating to setbacks, grazing management, slope and area.
- C. Retaining the definition of cultivation, removing 'pasture' from the definition of forage crop, and reliance on the 'slope' definition in the WRP.

C3. Certified Industry Schemes

- 71. Certified Industry Schemes (CIS) are entities that have been approved by the Chief Executive Officer of WRC as meeting specific requirements for supporting the preparation of FEPs and overseeing their ongoing implementation. The CIS concept is intended to manage permitted activities with a comparable level of scrutiny to consented activities, but with the CIS providing the oversight instead of WRC. The certification process is set out primarily in Schedule 2. Farming activities registered with a CIS are permitted and those not registered will generally require resource consent.
- 72. Most submitters support in principle the proposal to establish and use CISs as a method for achieving the objectives of PC1. However, some submitters have raised concerns with the legal basis for the provisions. Most submitters, whether in support or opposition, have sought increased certainty and clarity around how CISs will operate. Many submitters have sought specific amendments to strengthen requirements around audit, monitoring and enforcement.
- 73. The CIS concept is a primary method in PC1 for supporting the preparation and implementation of FEPs, therefore it is closely linked to the content of Schedule 1 and the requirements for FEPs. The activity status of Rule 3.11.5.3 has a significant impact on WRC's implementation of PC1 – if not permitted, several thousand additional farms would require resource consent.
- 74. Key recommendations include:
 - A. Amending the name to Certified Sector Schemes to better align with definitions in the existing Regional Plan.
 - B. Generally clarifying the purpose of Schemes and the process for becoming certified through a specific policy and clarification of Schedule 2.
 - C. Better articulating the minimum standards that Schemes will be required to meet, including the requirements for ongoing audit and monitoring.

- D. Addressing issues with the legal basis for Schemes by amending Rules 3.11.5.3 and 3.11.5.4, such that farming under a Scheme will not be a permitted activity.

C4. Stock exclusion

- 75. Schedule C of PC1 sets out the main requirements for stock exclusion. The exclusion of cattle, horses, pigs and deer from water bodies is one of the main PC1 responses to the high levels of microbial contaminants in large parts of the Waikato and Waipa catchments.
- 76. This is one of the most heavily submitted on elements of PC1. Many submissions seek the complete removal of stock exclusion requirements, while others seek substantial amendment, primarily to make the provisions more flexible and require less fencing. Other submissions seek more certainty in the provisions, and some consider the notified provisions are inadequate.
- 77. While central government suggested some consistent national stock exclusion regulations a few years ago, these have not progressed and have no current status. That said, many submitters have suggested they should be adopted, or have taken guidance from them.
- 78. Key recommendations include:
 - A. Keeping stock exclusion requirements as a key part of PC1, through Schedule C.
 - B. Removing inconsistencies between the rules and Schedule C, and adoption of some elements of the draft national regulations, particularly around stock crossings.
 - C. Requiring stock exclusion on a wider range of smaller rivers, streams and drains.
 - D. Not making a specific recommendation on the slope thresholds for fencing, but recognising that the existing Schedule C provisions are unrealistic in not having any maximum slope threshold.
 - E. Identifying that temporary, virtual and other kinds of stock exclusion are appropriate.

C5. Māori Treaty Settlement Land

- 79. Plan Change 1 includes provisions for the flexibility of the use of land returned under Treaty of Waitangi settlement processes and Māori freehold land under the jurisdiction of Te Ture Whenua Māori Act 1993. The relevant Māori Land provisions include Objective 5 and Policy 16.

80. Objective 5 provides for the relationship of tangata whenua with their ancestral lands and ensures other provisions of PC1 do not further inhibit the ability of tangata whenua making use of their land. Submissions related to Objective 5 were considered as a part of the Block 1 S42A report. Policy 16 provides more enabling guidance for applications for land use of Māori Land through the non-complying activity rule.
81. Many submissions were received on this topic and the general themes include that everyone should be treated the same; and an alternative, less stringent activity status to the non-complying rule should be provided for tangata whenua ancestral lands.
82. Key recommendations include:
- A. Objective 5 and Policy 16 are recommended to be retained as both provisions provide policy support when considering land use consents for Māori land. It is important to provide for Māori land provisions through the policy framework due to the historical and contemporary factors that have limited land development opportunities.
 - B. No recommendation has been made for an alternative activity status to the non-complying land use rule in relation to Māori Land, due to the challenging nature of the competing priorities.

C6. Urban/point source discharges

83. PC1 includes four policies (Policies 10-13) that provide specific direction on the management of point source discharges. The existing Regional Plan already has rules for point source discharges and PC1 does not include any additional rules.
84. The submissions are extensive and detailed. Many submissions seek equivalency of treatment with diffuse (farming) discharges, and there appears to be a perception of favourable treatment of point source discharges. Submissions from industry and territorial authorities focus on specific changes to improve certainty, and in some cases seek provision for growth or other flexibility.
85. The RPS contains considerable policy direction for the management of point source discharges, and regionally significant industry and infrastructure.
86. Key recommendations include:
- A. Maintaining each of Policies 10-13 as policies that apply to point source discharges only, and not seeking equal application to diffuse discharges.

- B. Including definitions of regionally significant industry and regionally significant infrastructure (from the RPS)
 - C. Generally tightening the requirements and obligations on point source dischargers, to provide better alignment with the Vision and Strategy and the 'direction of travel' indicated by PC1.
 - D. Providing clarity around best practicable option, offsets and consent duration
87. With respect to the requested map showing MAV colour-coded sub-catchments to expand on the table summarising groundwater chemistry in the S42A Report, this is unfortunately not available yet. Council staff are in the process of clarifying the source data (WRC TR 2018/33) with the assistance of GNS to match the specific sub-catchment sites. As soon as it is available and checked, I will provide it to the Panel.

QUESTION 15: Sub-catchment based planning approach

88. The Panel has asked the following question:

Can Mr McCallum-Clark address the Sub-catchment based planning approach as set out in the question earlier to the Council?

RESPONSE

89. At the outset, I confirm that I agree with the earlier answer given. On that basis, below is a description of the relief sought in some of the submissions raising 'sub-catchment planning' so that the Panel is more aware of the diversity of views and approaches.

Submissions on sub-catchment planning

90. PC1 is inherently based on sub-catchments, in terms of the water quality modelling and the limits and targets set out in Table 3.11-1. Sub-catchment planning and sub-catchment scale planning is also described in Policy 9 and Method 3.11.4.5 (see Appendix 1 for the provisions in full). These provisions describe future processes that may be undertaken by WRC in engagement with tangata whenua, landowners, communities and potential funding partners to develop water quality management approaches at a sub-catchment scale. Method 3.11.4.9 also details how sub-catchment scale planning will be undertaken in urban sub-catchments. The intention is that sub-catchment planning is progressed by WRC and the community as part of non-regulatory interventions.

91. As highlighted in a number of submissions, PC1 does not include specific provisions (including objectives, policies, methods, and rules) which implement sub-catchment planning approaches in a regulatory framework.
92. A large number of submitters (several hundred) support the “sub-catchment approach” and seek that PC1 provisions (in particular, the rules, or more generally, the whole plan) are amended to adopt a “sub-catchment approach”, sometimes with reference to the existing Policy 9. However, the majority of these submissions do not provide any further detail as to what this might mean for the PC1 provisions.
93. Several submitters have provided specific amendments to better provide for a sub-catchment planning approach, others are less certain. If suggested amendments are included in submissions, these typically include collaborative sub-catchment groups or a variation of this theme.
94. A summary of some common or more detailed submissions follows. This is by no means comprehensive and there are likely to be variations on the below in submissions that could also be options:

1. Managing contaminants relevant to each sub-catchment

- Many submitters request that a sub-catchment approach is adopted to address contaminants relevant to each sub-catchment, by removing the restrictions related to one nutrient (nitrogen) and enabling FEPs to determine what is best for each farm and for science to determine which contaminants are an issue in each sub-catchment. This is a particularly common approach for submitters in the hill country or upper catchment.
- DairyNZ suggests amendments to the policy framework to describe the purpose of the FEP and how it fits with sub-catchment plans. Others suggest that sub-catchment plans should be completed prior to FEPs.
- Several submitters also request that the sub-catchment approach is also based on land use capability.

2. Collective mitigations by sub-catchment groups

- This approach to sub-catchment planning refines the existing approach set out in PC1, with amendments to provisions to better enable and support sub-catchment groups to work alongside the Council to identify mitigations and solutions to specific sub-catchment water quality issues.
- Submitters have also requested additions to the rule framework to enable the WRC to consider sub-catchment plans when reviewing FEPs, or to enable consents to be granted to a group of landowners at a sub-catchment level to work together to meet the water quality targets – this includes collective mitigation actions that may be used to ‘off-set’ losses from specified farms.

3. Catchment groups: managing to catchment load limits⁴:

- Often in addition to the “collective mitigations” described in (2) above, some submitters also seek an ability for sub-catchment groups to apply for consent to collectively manage land uses within sub-catchment load limits. This approach requires amendments to PC1 to either set load limits, or to enable the setting of sub-catchment load limits. A rule framework that allows sub-catchment groups to apply for a consent to use land for farming activities within the load limits would also be required.
- The submission from HortNZ proposes the inclusion of sub-catchment load limits based on information prepared as part of the development of PC1. The submission from M Peters states that load limits would need to be calculated but does not propose a method for setting the limits.
- The submission from HortNZ also sets out the administrative requirements of a sub-catchment collective.

4. Catchment groups: managing to catchment load limits via a future Plan Change

- The submission from Federated Farmers on PC1 requests that more detailed proposals at a sub-catchment levels should be developed later, through an FMU-based assessment and implemented through a sub-catchment based plan

⁴ HortNZ; M Peters; Fish & Game (numerous submission points)

change. A large number of submitters have adopted this submission point in their submission.

5. Adaptive Management⁵:

- Similar to (2) above, Wairakei Pastoral Ltd seeks an ability for landowners to collaborate to manage contaminant discharges. The approach put forward by Wairakei Pastoral Ltd includes a number of significant amendments to the policies and rules, the addition of new schedules and definitions of the terms.
- The submission from Wairakei Pastoral Ltd sets out, in detail, provisions that manage discharges at a sub-catchment level and a rule framework which enables a resource consent application to be made by an enterprise/farming group for a change in land use. The framework supported by Wairakei Pastoral Ltd includes the development of a sub-catchment management plan that requires the establishment of “the principles for allocation ...of an input load based nutrient cap at the refined sub-catchment level” but does not specifically require that load limits be set. This approach also relies on an adaptive management regime, where consent holders will be required to monitor the environment, undertake predictive modelling and respond to any actual or potential adverse effect of the land use change.

6. Group Action Plans

- The submission from Federated Farmers on Variation 1 describes a general planning framework based on three levels of interventions, the first of which is “Group Action Plans”.
- They seek that Group Action Plans are included within PC1 with the purpose of improving water quality, and are supported by sub-catchment planning, the introduction of “Catchment Profiles” to coordinate sub-catchment information, and through FEPs taking into account “Catchment Profiles”.
- Federated Farmers suggests that:

⁵ Wairakei Pastoral Ltd

- (a) Action Plans will coordinate whole or part of sub-catchment(s) actions or edge of field mitigations and coordinate funding and participation; and
 - (b) There will be no legal obligation to be part of an action plan but actions committed to by farmers as part of an action plan are taken into account when considering the tailored actions as part of the FEP.
 - (c) The Group Action Plan approach to sub-catchment planning also includes amendments to Rule 3.11.5.6 (the use of land for farming activities), where the council's discretion includes the diffuse discharge of contaminants taking into account sub-catchment management plans and the "catchment profile".
95. The intention of the conferencing on this topic is to identify commonality between submitters and suggestions, with a view to identifying if there are one or more agreed options that could be put before the Hearing Panel. If there is more than one option, they may not be mutually exclusive.
96. As identified in the Block 1 report (at page 27), I have significant concerns about sub-catchment approaches that do not take a catchment-wide view to reducing contaminant losses, particularly of those contaminants that are cumulative across the whole catchment.

Matthew McCallum-Clark

11 March 2019

Appendix 1 – Existing provisions from PC1

Policy 9: Sub-catchment (including edge of field) mitigation planning, co-ordination and funding/Te Kaupapa Here 9: Te whakarite mahi whakangāwari, mahi ngātahi me te pūtea mō te riu kōawāwa (tae atu ki ngā taitapa)

Take a prioritised and integrated approach to sub-catchment water quality management by undertaking sub-catchment planning, and use this planning to support actions including edge of field mitigation measures. Support measures that efficiently and effectively contribute to water quality improvements. This approach includes:

- a. Engaging early with tangata whenua and with landowners, communities and potential funding partners in sub-catchments in line with the priority areas listed in Table 3.11-2; and*
- b. Assessing the reasons for current water quality and sources of contaminant discharge, at various scales in a sub-catchment; and*
- c. Encouraging cost-effective mitigations where they have the biggest effect on improving water quality; and*
- d. Allowing, where multiple farming enterprises contribute to a mitigation, for the resultant reduction in diffuse discharges to be apportioned to each enterprise in accordance with their respective contribution to the mitigation and their respective responsibility for the ongoing management of the mitigation.*

3.11.4.5 Sub-catchment scale planning/Te whakamāherehere mō te whānuitanga o ngā riu kōawaawa

Waikato Regional Council will work with others to develop sub-catchment scale plans (where a catchment plan does not already exist) where it has been shown to be required. Sub-catchment scale planning will:

- a. Identify the causes of current water quality decline, identify cost-effective measures to bring about reductions in contaminant discharges, and coordinate the reductions required at a property, enterprise and sub-catchment scale (including recommendations for funding where there is a public benefit identified).*
- b. Align works and services to reduce nitrogen, phosphorus, sediment and microbial pathogen discharges including riparian management, targeted reforestation, constructed wetlands, sediment traps and sediment detention bunds.*
- c. Assess and determine effective and efficient placement of constructed wetlands at a sub-catchment scale to improve water quality.*
- d. Support research that addresses the management of wetlands, including development of techniques to monitor ecological change and forecasting evolution of wetland characteristics resulting from existing land use in the wetland catchments.*
- e. Integrate the regulatory requirements to fence waterways with the requirements for effective drainage scheme management.*
- f. Coordinate funding of mitigation work by those contributing to water quality degradation, in proportion to that contribution.*
- g. Utilise public funds to support edge of field mitigations where those mitigations provide significant public benefit.*