BEFORE AN INDEPENDENT HEARING PANEL
OF THE WAIKATO REGIONAL COUNCIL

IN THE MATTER OF	the Resource Management Act 1991 (**RMA**)
AND	
IN THE MATTER OF	of the Proposed Waikato Regional Plan Change 1: Waikato and Waipā River Catchments and Variation 1 to Plan Change 1

STATEMENT OF EVIDENCE of IAN DAVID MAYHEW ON BEHALF OF WAIKATO REGIONAL COUNCIL AS SUBMITTER

Planning - Block 2

3 May 2019

INTRODUCTION

1. My name is Ian David Mayhew. I am a Principal Planning and Policy Consultant with 4Sight Consulting Limited (**4Sight**). I have been engaged by the Waikato Regional Council (**Council**) to provide policy planning support and evidence in respect of its submissions to Proposed Plan Change 1 to the Waikato Regional Plan and Variation 1 to Proposed Plan Change 1 (collectively referred to as **PPC1**). My qualifications and relevant experience are attached as Attachment A.

2. I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence. Except where I state that I am relying on the evidence of another person, this evidence 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 expressed in this evidence.

3. In preparing this evidence I have reviewed the Reporting Officers' Block 2 Section 42A report (s42A report) and associated appendices, parts of the original section 32 assessment prepared to support PPC1, and other background material together with my own knowledge of consenting issues associated with flood protection and land drainage schemes. I have not been party to the hearing of Block 1 matters; however, I have been briefed on some aspects of them.

SCOPE OF EVIDENCE

4. My evidence addresses the following aspects:
   a. My involvement in PPC1;
   b. Policies 1 and 2 and Controlled Activity Rule 3.11.5.2A;
   c. Policies 10 through 13 (Point Source Discharges) as they relate to Flood Protection and Land Drainage Schemes;
   d. Schedule C Clause 2, as it relates to fencing requirements within Council operated Flood Protection and Land Drainage Schemes.

INVOLVEMENT/ROLE IN PPC1

5. I was engaged by Council in January 2019 to assist in providing Policy Planning support for its submissions on the proposed plan change and its variation, which were lodged on 7 March 2017 and 23 May 2018 respectively. As the regulatory authority tasked with the responsibility to implement PPC1, Council's submissions are primarily concerned with ensuring that the provisions, rules and associated requirements are clear and able to be implemented and ultimately enforced. Council also lodged specific submissions in relation to Council-operated flood protection and land drainage schemes and the specific issues associated with the application of PPC1 to these schemes.

6. My role has therefore been to assist Council in reviewing the provisions 'with a fresh set of eyes' and help to refine them to address issues of clarity and resolve potential ambiguity in the interpretation and application of the provisions. While I acknowledge the significant and substantial work by both the original authors and the team preparing the s42A reports, who have detailed knowledge of the background and issues associated with PPC1 that far exceeds my own, it is important that the provisions can be readily understood and consistently interpreted by a wide audience.

7. I acknowledge the changes that have been promoted by the s42A authors, some of which address matters raised in Council's submissions. However, some changes introduce provisions that also raise matters of clarity and implementation. I address these under the fundamental basis of Council's submission, being to ensure that the provisions are clear, implementable and enforceable.

8. The focus of my review has been to address some key areas of clarity and implementation – with the s42A version as being my starting point for suggested revisions. I have also considered policy and rule options in respect of flood protection and land drainage schemes, to better reflect the particular functions and operational requirements of those schemes and their contribution to PPC1 objectives. I acknowledge that much of the content of the Block 2 topic is subject to significant debate and hence may change. My primary concern is that the policies and rules in particular should provide clear guidance as to their expectations and requirements to facilitate consistent implementation and realistic expectations for flood protection and drainage schemes.

POLICIES 1 AND 2 AND RULE 3.11.5.2A [1]

9. I agree with the statement in the s42A report[2] that Policy 1 and Policy 2 are of primary importance to achieving the desired outcomes of PPC1. These policies respectively establish the catchment-wide expectations for the reduction of key contaminants (Policy 1) and the essential role of Farm Environment Plans (**FEPs**) in achieving these reductions (Policy 2), which are in turn implemented by the rules.

10. However, I find it difficult to follow the 'thread' from objectives through to policies, rules (and the FEPs themselves). In particular, the expectations for contaminant[3] reductions and Good Farming Practice (**GFP**) and the clarity of how these will be delivered through FEPs and the resource consent process. My approach to the policies and rules has been on the basis that a catchment-wide move to GFP, as recommended in the s42A report, will (in conjunction with specific nitrogen requirements and stock exclusion) be generally sufficient to achieve the objectives of the plan change.

Clauses a1 and b2

11. Clause a1 as currently drafted requires farming to operate at GFP or better, while clause b2 specifies that where GFP is not adopted, control will be specified in a resource consent to ensure contaminant losses will be reducing. In my opinion, these redrafted clauses raise the issue that if farming is '*required'* to adopt GFP (clause a1), under what circumstances would an alternative to GFP be allowed through a resource consent in accordance with clause b2?

12. In respect of this point, from the s42A report and associated technical memo I conclude that adopting GFP is a fundamental aspect of the proposed changes to PPC1. If this is the case, then the key issue in respect of GFP appears to be not *whether* it is going to be adopted but rather *the timeframe over which it is achieved* on a farm. If this is the correct interpretation then, in my opinion, Policy 1 should be amended to retain the expectation that all farming will ultimately operate in accordance with GFP, but recognise that there may be some circumstances where a longer term approach to achieving GFP is required in accordance with individual farm circumstances.

[1] Unless explicitly identified, my references to the provisions refer to the version recommended in the s42A report.
[2] Para 213
[3] Where I use the term contaminants, it collectively refers to nitrogen, phosphorus, sediment and microbial pathogens

Policy 1 – Clauses b and b1

13. In my opinion, the proposed additions to these Clauses – and in particular Clause b in respect of a proportionate reduction – raise issues as to how they should be interpreted for contaminants other than nitrogen, and how they inter-relate with other requirements for nitrogen reduction.

14. In principle, reducing contaminant loads in general proportion to the amount of load and the improvement required in a (sub) catchment is an appropriate resource management response (and I note is an element of Policy 2(d) in PPC1 as notified). However the changes made to the policy, including the specific benchmarking of reductions to 2016 and the move to GFP, raise questions as to what outcome is anticipated by this policy. In particular:

    a. How will a reduction that is proportionate to 2016 levels be determined and subsequently achieved for non-nitrogen contaminants? My understanding is that only 2016 nitrogen loads will be benchmarked through the nitrogen reference point (NRP). Hence there will be no benchmark of losses for phosphorus, sediment and pathogens for a proportionate reduction to be applied or assessed against. Furthermore, I understand that the primary method of reducing phosphorus, sediment and pathogens is through the adoption of GFP and it is not clear to me whether the plan anticipates that measures that go beyond GFP may be required to meet water quality targets for these contaminants and how this may be identified.

    b. A reduction that is proportional to both 2016 loads and the necessary (sub) catchment improvements may be feasible for nitrogen, which is benchmarked through the NRP. However, it is not clear to me how a proportionate reduction in nitrogen would be applied alongside the other requirements for nitrogen reduction – notably the requirement for upper quartile nitrogen emitters to reduce their nitrogen leaching to below the 75 percentile nitrogen leaching value. Does one take precedence over the other or does a proportionate reduction in nitrogen apply only to farming whose NRP is below the 75 percentile nitrogen leaching value?

15. I reiterate that I am not suggesting that outcomes being sought should be changed, but instead seeking clarity as to how they are expressed in this policy and how the various policy elements interact.

16. It appears to me that a proportional reduction in contaminants is already inherent in the policies by:

a. Progressively removing cattle, horses, deer and pigs from waterways;

b. Prioritising consents (and associated FEPs) for those farms that are in priority catchments;

c. Requiring the upper quartile (and potentially the >50 percentile) nitrogen emitters to reduce their nitrogen discharge;

d. Requiring GFP or better on all farms, which will mean that those farms that are currently furthest from GFP should see the greatest reduction in contaminant discharges as GFP is progressively achieved.

17. However, if a more specific proportionate reduction approach is to ultimately be adopted, I consider that the policy should be revised to provide a clear indication of what this means in the context of the four contaminants and the other reduction requirements that apply so that it is unambiguous.

Policy 1 – Clause b3 and b4

18. These clauses help confirm the expectations for resource consents. However, in my opinion the expectations do not clearly align with the other subclauses in Policy 1 in that they only refer to 'reductions' and not the level of reductions as sought through other clauses. Additionally, I understand that from a compliance perspective the focus will be on the *actions* that are required to bring about GFP and nitrogen reductions rather than the magnitude of reductions *per se*. Accordingly, it may be preferable to bring this concept into the policy.

19. Bringing all of these changes together a possible restructure of Policy 1, which I consider provides better clarity, is:

> **Policy 1: Diffuse discharge management /Te Kaupapa Here 1: Te whakahaere i ngā rukenga roha o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto**
>
> *Reduce catchment-wide and sub-catchment diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens by:*
>
> *a1. Requiring all farming to operate at Good Farming Practice, or better; and*
>
> *a2. Establishing, a Nitrogen Reference Point for all properties or enterprises in accordance with Schedule B; and*
>
> *a. Enabling farming with a low level of contaminant discharge to water bodies; and*

b. Requiring farming with moderate to high levels of nitrogen discharge to water bodies to:

i. reduce nitrogen loss to below the 75th percentile nitrogen leaching value where the farm's Nitrogen Reference Point is greater than the 75th percentile nitrogen leaching value by (date);

ii. [reduce nitrogen loss where the farm's Nitrogen Reference Point is between the 50th and 75th percentile leaching value]; and

b1. Specify controls in a resource consent to ensure contaminant losses will be reducing (or maintained where no reduction is required) and progression to Good Farming Practice where it has yet to be achieved; and

b2. Generally granting only those land use and discharge consent applications that have a Farm Environment Plan that demonstrates clear and enduring actions to implement:

i. Good Farming Practice or better; and

ii. the necessary nitrogen reductions in Clause b, or alternatively no increase in nitrogen loss where no nitrogen reduction is required; and

b3: Except as provided for in Policies [1(a) and] 16, generally not granting land use consent applications that involve a change in the use of the land, or an increase in the intensity of the use of land, unless the application demonstrates clear and enduring reductions in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens and a progression to good farming practice over time, consistent with the clauses a1 to b above; and

c. Progressively excluding cattle, horses, deer and pigs from rivers, streams, drains, wetlands and lakes.

Note: Shading and options are as presented in the s42A report, denoted by XXXX and [ ], and have been retained.

20. I advise that I have removed the reference to proportionate reductions in Policy 1. As I have indicated above, this is not to change the outcome sought by the policy but rather because I do not understand how it relates to the other policy elements. Should the Panel consider this to be an important component of this policy, it could be re-instated provided it is clear how it is to be interpreted in conjunction with GFP, nitrogen reductions and other requirements.

Policy 2 – Farm Environment Plans

21. In my interpretation of PPC1, Policy 1 provides the big picture view of how the desired outcomes and contaminant reductions will be achieved while Policy 2 provides more detailed expectations for FEPs, which are a primary tool in achieving these through the management of land use activities and other mitigation. However, I consider Policy 2 can be improved to provide better guidance as to what is expected at this level. My suggestions are as follows:

a. Remove the reference to ‘catchment-wide and sub-catchment’ in the first line. This concept is already incorporated into Policy 1 and does not need to be repeated, particularly when Policy 2 specifically relates to FEPs for individual farms which, in my opinion, should be its focus.

b. Include a specific cross reference to the expectations for the reduction of nitrogen and other contaminants in Policy 1, similar to the clause that has been added in respect of GFP in the s42A version, to provide specific guidance to FEPs on this fundamental matter.

22. I acknowledge that some of this content (for example nitrogen reduction) is already included in Schedule 1. However in my opinion it is appropriate to be explicit in this policy as to the expectations for FEPs, as a critical tool in achieving the desired reductions in contaminants, while leaving the detail to Schedule 1.

23. A possible refined Policy that addresses comments above is

Policy 2: Farm Environment Plans /Te Kaupapa Here 2: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā mahinga pāmu

Reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from farming on properties and enterprises, through Farm Environment Plans that:

a. Take a tailored, risk based approach to define mitigation actions on the land that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens; and

a1. Set out clear, specific and timeframed actions to achieve and maintain Good Farming Practice, or better; and

a2. Set out clear, specific and timeframed actions to demonstrate that the relevant reductions in nitrogen and other contaminant losses in Policy 1 are met, or will be met, and maintained; and

b. Undergo the same level of rigour in developing, monitoring and auditing set out in a Farm Environment Plan, whether the consent holder is a member of a Certified Sector Scheme or not; and

b2. Are flexible and able to be updated so that continuous improvement, new technologies and mitigation practices can be adopted, such that diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens further reduce over time.

Rule 3.11.5.2A

24. As discussed in the s42A report and the evidence of Dr McLay, approximately 5,700 farms will be required to obtain resource consent under the provisions of PPC1. This comes with a significant cost and resource requirement for both applicants and Council as regulatory authority, which is also highly dependent on the number of farms included in Tranche 1 and the activity status of the resource consents as discussed in the evidence of Mr Sinclair.

25. I concur with the reporting officers where they discuss the difficulty in developing a permissive framework where mitigation is farm specific[4]. Short of having a 'self/industry auditing' regime, or very clear and specific permitted activity performance standards, permitted activities would be difficult to develop and enforce for activities other than those that are minor contributors to contaminant loads (as already provided for in the rules).

26. In contrast, as Mr Sinclair advises, a consenting regime that requires a restricted discretionary activity consent for farming has the potential to be onerous, costly to applicants who have to prepare applications and pay for their processing, and potentially penalise those farms that have already implemented management actions and mitigations to meet GFP and other requirements. Accordingly, I support the option presented in the s42A report of providing for most farming as controlled activities to facilitate and streamline consent applications and processing – with some revision.

27. The reporting officers expressed some concern that adopting a controlled activity status would mean that an application could not be declined if, for example, an application increases contaminant losses[5]. However, I consider that this risk can be appropriately managed through the use of controlled activity conditions that provide a 'gateway' that must be met for the activity to be assessed as a controlled activity. Where conditions cannot be (or are not) met, the consent defaults to a different (eg restricted discretionary activity) pathway. In my opinion this is a better approach for a controlled activity rule than one of putting important performance criteria, for example the expected nitrogen reduction in Rule 3.11.5.2A iv, as a matter of control. I also consider it addresses the potential issue the officers have raised in respect of the inability to decline a controlled activity.

[4] Para 305
[5] Para 293

28. Accordingly I suggest including both GFP and the required nitrogen reduction requirement as conditions of Rule 3.11.5.2A, such that actions and measures to achieve these would need to be demonstrated to the satisfaction of a Certified Farm Environment Planner for a consent to be processed as a controlled activity.

29. I acknowledge that assessing whether a FEP includes the appropriate timeframed actions to meet GFP and any required nitrogen and other contaminant reduction is not a 'black and white test', but requires an element of expert judgement. However, this is the task that is being given to Certified Farm Environment Planners (in Policy 1 and 2 and Schedule 1) and is consistent with the process outlined in the report of Mr Rob Dragten that is included in the s42A report[6], with some minor changes.

30. In my opinion, a controlled activity rule combined with appropriate 'gateway' conditions provides several significant advantages:

    a. It incentivises farming to meet the desired outcomes within a suitable period of time by giving greater certainty to farmers, provided the conditions are met.

    b. It reduces resource requirements and costs for resource consents, both for applicants and Council, as the various expectations have been (or will be) met as confirmed by a Certified Farm Environment Planner. Hence the consent can be subject to a more streamlined assessment and standardised conditions.

    c. It does not reduce outcomes. Demonstrating the actions and measures required to achieve stock exclusion, GFP and necessary contaminant reductions through a FEP is a requirement of being processed as a controlled activity. If this is not demonstrated to a level that is approved by a Certified Farm Environment Planner, then a more extensive restricted discretionary activity consent applies.

31. Revising the rule option provided in the s42A report in the manner I have discussed above results in:

[6] Page 64

Rule 3.11.5.2A - Controlled Activity Rule

The use of land for farming, which is not a permitted activity under Rules 3.11.5.1A to 3.11.5.2, is a controlled activity subject to the following conditions:

1. *The property is registered with the Council in conformance with Schedule A; and*
2. *A Nitrogen Reference Point is produced for the property in conformance with Schedule B; and*
3. *Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and*
4. *The farming does not form part of an enterprise; and*
5. *No commercial vegetable production occurs; and*
6. *Full electronic access to Overseer or any other software or system that models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Council; and*
7. *A Farm Environment Plan has been prepared in conformance with Schedule 1 and has been approved by a Certified Farm Environment Planner as providing actions and mitigations that at a minimum will meet, by (date):*
    a. *Good Farming Practice;*
    b. *The relevant nitrogen reduction requirements in Policy 1;*

    Or where no nitrogen reduction is required by Policy 1 for the farm either:

    c. *The Nitrogen Reference Point is not exceeded; or*
    d. *The stocking rate of the land is no greater than 18 stock units per hectare and has not increased above the stocking rate during the Reference Period in Schedule B; and*
8. *There has been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:*
    1. *Woody vegetation to farming; or*
    2. *Any farming other than dairy farming to dairy farming; or*
    3. *Any farming to Commercial Vegetable Production*

Waikato Regional Council reserves control over the following matters:

i. *The content, compliance with and auditing of the Farm Environment Plan.*

ii. *The actions and timeframes to achieve and maintain Good Farming Practices or better and actions, measures and timeframes to meet and maintain the relevant nitrogen and contaminant reduction requirements in order to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or to land where they may enter water.*

iii. *For enterprises, the procedures and limitations, including Nitrogen Reference Points, to be applied to land that enters or leaves the enterprise.*

iv. *The term of the resource consent.*

v. *The timeframe and circumstances under which the consent conditions may be reviewed.*

vi. *Procedures for reviewing, amending and re-approving the Farm Environment Plan.*

vii. *Measures to ensure compliance with Conditions 1 to 8 above over the term of the consent.*

viii. *Requirements for updating the NRP and FEP to reflect future changes in Overseer or other approved method of calculating nitrogen leaching.*

32. I have added the last two points as a 'belts and braces' approach to ensure ongoing compliance with the controlled activity conditions and that the NRP and FEP are updated over time.

POINT SOURCE DISCHARGES – FLOOD PROTECTION AND LAND DRAINAGE SCHEMES

33. This section of my evidence focusses on the specific issue of how PPC1 might be applied to resource consents for the operation of flood protection and land drainage schemes, which are a very specific type of point source discharge activity and one that is subject to its own rule set under the Waikato Regional Plan (Section 3.5.10). I am advised that the majority of discharges from pumped flood protection and drainage schemes are authorised by permitted activity rule 3.5.10.1. However, some schemes are required to obtain consent under rule 3.5.10.2 as they are existing schemes. There is also the potential for existing permitted activities to be assessed as requiring resource consent in the future.

34. The evidence of Mr Basheer, on behalf of Council, describes the essential function, operation and management of flood protection and land drainage schemes of which Council operates some 75 schemes in the Waikato and Waipa River catchments. Essentially the purpose of these schemes is to manage risks to communities associated with flooding and enabling and protecting economic productivity.

35. The drains, floodgates and pump stations that comprise these schemes are direct conveyance structures, which receive runoff and transport it across a control structure at the same time or within a short time period depending on its capacity and changes in water levels. Scheme operations are 'flow-through' activities and do not add contaminants. The quality of the water conveyed is the product of land-based activities and smaller point discharges into the main drains. In this regard, scheme discharge are similar to those from a dam which collects water from upstream and releases it downstream. The main difference is that drainage

schemes may be pumped, rather than gravity fed, due to their function of draining land for agricultural use[7].

36. This does not mean that the operation of flood protection and land drainage scheme does not give rise to adverse effects. Hydrological modification of the nature and extent of that described in the evidence of Mr Basheer cannot realistically occur without some change to natural hydrological regimes. However from the perspective of PPC1, which focuses on four contaminants being: nitrogen, phosphorous, sediment and microbial pathogens, flood protection and land drainage scheme discharges do not add to the contaminants that are already in the flow. Rather, they simply pass upstream flows through or over a control structure.

37. Council's concern is that the requirements of PPC1 in respect of the water quality attribute targets in Table 3.11-1 will be applied to these nominal 'point source discharges' through consent processes and create unachievable expectations that the contaminants that are entrained in the water flow as a result of upstream land use activities can, and should, be managed and removed to meet the water quality targets in PPC1.

38. Mr Basheer describes the need to operate flood protection and land drainage schemes to meet established levels of service for flooding and land drainage. He describes the limited ability to retain and treat flows due to the small footprints of the structures and the large volumes of runoff that are required to be transported during flood events. Furthermore, he advises that retaining flows for long periods can have negative effects on downstream water quality through reduced dissolved oxygen. Mr Basheer does, however, describe how the operation and maintenance is optimised to minimise downstream effects.

39. In response to Council's submission, the reporting officers advised:

Policy 11

1125. With regards to WRC's concerns about the application of the policy to flood management and drainage infrastructure, it is noted that the policy only requires that the BPO is adopted; it does not require offsets. The circumstances of any consent application for this type of discharge would need to be considered when determining the application, including consideration of whether the discharge

[7] I note that the rules for discharges from pumped flood protection and drainage schemes are located in the 'Discharges' section of the WRP, while the rules for dams incorporate the discharges and are located in the 'Damming and Diverting' section and there does not appear to be any separate discharge rule.

increases or simply moves contaminants. Changes to the policy are not considered necessary to more explicitly address the particular circumstances of flood management and drainage consents.

Policy 12

1144. WRC seek that the following additional clause is added to the policy: That flood and drainage infrastructure is not contributing to catchment loads but conveying water for flood management purposes. The reason for this change is not clear. They also seek that the references to water quality targets in the policy is amended so that the referencing is consistent. Consideration of how the targets are referenced is addressed above. In relation to the new clause sought, Officers consider that justification for the addition is required. The Officers' preliminary view is that where infrastructure does not contribute to catchment loads, the policy would not be a relevant consideration in any case because it only relates to point source discharges that make a contribution to catchment loads.

40. I agree with the reporting officers' views that logically, these polices wouldn't apply, or would have limited application to, a flow-through activity. However, I do not agree that this means the policies should be silent on this matter as I consider they are currently ambiguous. Importantly, the interpretation of the policies needs to be considered holistically in light of the proposed consequential change to the matters of control in Rule 3.5.10.2 in PPC1:

Rule 3.5.10.2

iv. In the case of the Waikato and Waipa River catchments, measures that recognise and provide for the objectives in Chapter 3.11.

41. This matter of control suggests to me that there is a clear expectation that the discharges from existing pumped flood protection and drainage schemes will be required to implement measures that 'recognise and provide for' the objectives of PPC1.

42. As indicated in the s42A report[8], 'Provide for' 'is defined as meaning "to cause something to happen in the future". Hence I am concerned at the ability of flood protection and land drainage schemes to achieve this high expectation, and whether it is appropriate for these schemes to do so, as:

[8] Para 1063

a. The schemes do not 'generate' the contaminants they discharge, they pass upstream water through or over a structure such as a stop bank or flood control dam.

b. The land use activities that contribute groundwater and surface flows to the flood protection and drainage schemes are almost entirely rural and will be subject to the land use controls of PPC1 – hence the contaminants transported by flood protection and drainage schemes will already be reduced by virtue of these actions. Applying additional controls will impose a second layer of management, mitigation and cost on scheme members.

c. As discussed in the evidence of Mr Basheer, there are few practicable methods by which contaminants can be reduced at the control structure while achieving the levels of service the schemes are required to meet due the nature, design and function of these schemes.

43. I am not proposing that the management and operation of flood protection and drainage scheme discharges be entirely excluded from the provisions of PPC1. In my view the operation and management of these schemes (and the design of any new schemes if they developed) should at a minimum, be managed so as not to exacerbate water quality issues or reduce the ability to achieve the water quality targets. Rather, the provisions as they currently stand create an unrealistic and unachievable expectation for existing flood protection and land drainage schemes and do not adequately recognise that the contaminants that are transported are already subject to land use requirements under PPC1 and hence appropriately controlled at source.

44. To address these concerns my recommended changes are:

a. Add a clause to Policy 11 such that offset mitigation is not required where the discharge is from a flood protection and land drainage scheme that has been developed in accordance with the relevant legislation on the basis that:

- The schemes are fundamental to managing the hydrological regime in the lower and provide significant community and economic benefits;
- The contaminants that are carried in the flows are already subject to reduction through the provisions of PPC1.

I have considered several options of how best to do this. However, to avoid unintended consequences on other discharge activities, I have

concluded that it would be best if this clause was specific to the schemes and not general in nature.

b. Add a similar clause to Policy 12 and also recognise the circumstances and constraints for 'flow through' discharge activities when developing the best practicable option and assessing resource consents; and

c. Making a consequential change to Rule 3.5.10.2[9] to align it to the approach that is already taken in the WRP for existing flood protection and land drainage schemes in respect of other Water Management Classes and associated water quality standards. For existing schemes, which have little or no ability to reduce contaminants once they are entrained in the water flow due to their function and drain water from areas already subject to PPC1, I consider it appropriate that this matter of control be targeted at ensuring the schemes do not affect the ability to meet the relevant water quality targets.

45. The changes I propose are as follows (red tracks):

Policy 11: Application of Best Practicable Option and mitigation or offset of effects to point source discharges/Te Kaupapa Here 11: Te whakahāngai i te Kōwhiringa ka Tino Taea me ngā mahi whakangāwari pānga; te karo rānei i ngā pānga ki ngā rukenga i ngā pū tuwha

Require any person undertaking a point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipa River catchments to, as a minimum,[10] adopt the Best Practicable Option to avoid or mitigate the adverse effects of the discharge~~, at the time a resource consent application is decided~~.*

Where ~~it is not practicable to avoid or mitigate all~~ any adverse effects~~,~~ cannot be reasonably avoided, they should be mitigated, and where they cannot be reasonably mitigated, it is encouraged that[11] an offset measure ~~may~~ be proposed in an alternative location or locations to the point source discharge, for the purpose of ensuring positive effects on the environment to lessen any residual adverse effects of the discharge(s) that will or may result from allowing the activity provided that the:

a. Primary discharge does not result in any significant or toxic adverse effect at the point source discharge location; and
b. Offset measure is for the same contaminant; and
c. Offset measure occurs preferably within the same sub-catchment in which the primary discharge occurs and if this is not practicable, then within the same Freshwater Management Unit or a Freshwater Management Unit^ located upstream, and

[9] I note that consequential changes are part of Block 3 and this change will be raised in hearings on that block. However, it is included here to indicate how it is intended that the policy changes above will be given effect to
[10] BT Mining PC1-9924
[11] DoC PC1-10694

d. *Offset measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism.*

No mitigation is required where the discharge is associated with a Flood Protection and Land Drainage Scheme, developed in accordance with the relevant provisions of the Land Drainage Act, the Soil Conservation and River Control Act and other relevant legislation.

Policy 12: ~~Additional considerations for~~ Considering point source discharges ~~in relation to water quality targets~~/Te Kaupapa Here 12: He take anō hei whakaaro ake mō ngā rukenga i ngā pū tuwha e pā ana ki ngā whāinga ā-kounga wai

When determining the best practicable option and deciding a resource consent application, c~~C~~onsider[12] the contribution made by a point source discharge to the nitrogen, phosphorus, sediment and microbial pathogen catchment loads and the impact of that contribution on the ~~likely~~[13] achievement of the short term water quality attribute states^ ~~targets~~^ in Table 3.11-1~~Objective 3~~ or the progression towards the 80-year water quality attribute states^ ~~targets~~^ in ~~Objective 1~~Table 3.11-1[14], taking into account:

a1. Whether the discharge is associated with a Flood Protection and Land Drainage Scheme, developed in accordance with the relevant provisions of the Land Drainage Act, the Soil Conservation and River Control Act and other relevant legislation; and

a2. Whether the activity solely transports upstream flow across or through a dam or control structure without adding to nitrogen, phosphorus, sediment or microbial pathogens loads in the flow and the practical ability to reduce contaminants in the flow; and

a. The relative proportion of nitrogen, phosphorus, sediment or microbial pathogens that the particular point source discharge contributes to the catchment load; and

b. Past ~~technology~~ upgrades undertaken to ~~model, monitor and~~[15] reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and

c. ~~The ability~~Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time ~~and~~ to[16] meet the water quality attribute states^ ~~targets~~^ specified above.~~; and~~

*~~d. The diminishing return on investment in treatment plant upgrades in respect of any resultant reduction in nitrogen, phosphorus, sediment or **microbial pathogens** when treatment plant processes are already achieving a high level of contaminant reduction through the application of the Best Practicable Option*.~~[17]*

[12] Hamilton CC PC1-10843
[13] Tangata Whenua – Waikato and Waipa River Iwi PC1-3353
[14] Fonterra PC1-10609
[15] Hamilton CC PC1-10843
[16] Fish & Game PC1-10888
[17] Tangata Whenua – Waikato and Waipa River Iwi PC1-3353

Rule 3.5.10.2

Waikato Regional Council reserves control over the following matters:

i. Measures to prevent erosion or scour at the point of the discharge

ii. Measures to prevent flooding effects on properties downstream of the discharge point, which have not been addressed by the scheme design approval process.

iii. Measures to prevent adverse effects on any wetland that is an area of significant indigenous vegetation or habitat of significant indigenous fauna.

iv. Measures to ensure the discharge does not adversely affect the receiving water body in a manner which is inconsistent with the relevant Water Management Classes identified in Section 3.2.4 or in the case of the Waikato and Waipa River catchments, the water quality attribute targets in Table 3.11-1.

~~*v. In the case of the Waikato and Waipa River catchments, measures that recognise and provide for the objectives in Chapter 3.11.*~~

SCHEDULE C, CLAUSE 2C.

46. A setback of 10 metres has been introduced into Schedule C 2 where an artificial or modified watercourse is managed by Council or a Territorial Authority. This setback distance appears to have been added to avoid a conflict with rule 4.2.18.1 of the WRP.

47. As advised in the evidence of Mr Basheer, council manages more than one thousand kilometres of drains within the Waikato and Waipā Rivers Catchments such that a ten metre strip each side of a drain would encompass a large area of land. Furthermore, Mr Basheer advises that:

a. The majority of existing Council-managed drains and waterways are already fenced in a location that is suitable for ongoing maintenance of the channels. Most maintained drains and watercourses are otherwise adequately captured by Schedule C 2 (a) with some falling into 2(b).

b. Most Council drains are on private land and a 10 metre wide strip with no stock access will require ongoing maintenance by the landowner and the cost of shifting the existing fences, if required, will be significant for landowners. Such a distance is not necessary for Council maintenance activities.

c. Watercourse maintenance activities are undertaken for short periods each year, only a matter of hours per year for each property involved.

d. The existing WRP Rule 4.2.18.1 largely addresses the need to ensure access for maintenance purposes is not impeded.

48. Additionally, in my opinion, a standard 10 metre distance is not explicitly required under Rule 4.2.18.1.

49. Hence an alternative, and in my opinion better, approach is to provide a note to the extent that Rule 4.2.18.1 also controls where and how fencing can be placed. This ensures that Council (and Territorial Authority) access for maintenance is provided while retaining the same stock exclusion provisions for farmers within schemes as those outside a scheme.

50. *My suggested change is as follows:*

Schedule C, Clause 2

New temporary, permanent or virtual fences installed after 22 October 2016 must be located to ensure cattle, horses, deer and pigs will be excluded from the bed of the water body. The fences must be located at a distance of not less than ~~cannot be within one metre of the water body (excluding constructed wetlands).~~

a. 1 metre from the outer edge of the bed for land with a slope of less than 15 degrees; and

b. 3 metres from the outer edge of the bed for land with a slope between 15 and 25 degrees~~; and~~

~~c. 10 metres from the outer edge of the bed for artificial or modified watercourses that are the full responsibility of a territorial authority or Waikato Regional Council for maintenance purposes~~

Note that Rule 4.2.18.1 also controls the placement of fences next to drains and watercourses where maintenance of these is the responsibility of the Waikato Regional Council or territorial authority

Ian Mayhew

Attachment A: Statement of Qualifications and Relevant Experience

A-1 My full name is Ian David Mayhew. I am a Principal Planning and Policy Consultant at 4Sight Consulting Limited (4Sight). I specialise in natural resource management including resource consent acquisition for major infrastructure, resource consent/notice of requirement processing and natural resource management policy/planning.

A-2 I hold the qualifications of a Bachelor of Science, Master of Science in Geology and a post graduate Diploma in Energy Technology (Geothermal), all from Auckland University. I am a full member of the New Zealand Planning Institute and a Certified Hearings Commissioner.

A-3 I have more than 30 years of experience in environmental and resource management. I have previously held a range of positions with (the then) Auckland Regional Council (ARC), firstly as a Water Resource Scientist and ultimately as the Manager, Land and Water Quality with responsibility for all aspects of land and water management, from policy development through to resource consents and compliance. This latter role oversaw the management of urban development activities and their potential impacts on land and water quality including earthworks, stormwater discharges, wastewater networks, industrial site pollution management, contaminated land/landfills and on-site wastewater management. In this role I also oversaw the ARC's programmes for rural land management, rural waste discharges and terrestrial biodiversity and biosecurity.

A-4 I have been a consultant for more than 17 years, initially as a senior consultant at Mitchell Partnerships Ltd. and, immediately prior to joining 4Sight (then Andrew Stewart Limited) in 2011, as a Director of Hill Young Cooper Ltd.

A-5 In these roles I have gained substantial experience in natural resource management, particularly freshwater management, and associated regional plan development/appeals and consent acquisition. In particular, I have:

(a) Prepared and contributed to the development of the Auckland Regional Policy Statement, including contaminated land and water quality.

(b) Acted as lead resource management/planning advisor for Auckland City Council and Metrowater on extensive appeals to the Auckland Regional Plan Air, Land and Water and Variation 1 to the Auckland Regional Plan Coastal.

(c) Assisted with submissions on and provided evidence to the Boards of Inquiry for the New Zealand Coastal Policy Statement and the National Policy Statement for Freshwater Management for Auckland City Council and Metrowater.

(d) Undertaken several commissions for the Ministry for the Environment on regional freshwater plan approaches and issues across New Zealand. This included the preparation of an "Issues and Opportunities" report, which resulted in a number of subsequent central government initiatives in respect of freshwater management, including the National Policy Statement on Freshwater, 2014 (NPSFM).

(e) Provided expert planning evidence to the Proposed Auckland Unitary Plan hearings before the Independent Hearing Panel on freshwater, stormwater and wastewater (including RPS and Auckland-wide objectives, policies and rules).

(f) Assisted Ministry for the Environment in undertaking a review of regional council (and unitary authority) implementation of the NPSFM.

(g) Advised several councils on a range of matters relating to discharges and the implementation of the NPSFM;

(h) Consent/designation acquisition (and processing) for major infrastructure including for the energy, transport and drainage sectors;

(i) Advised Waikato Regional Council on resource consent matters relating to drainage scheme discharges.