



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Submission by

Auckland Waikato Fish and Game

and

Eastern Region Fish and Game

on

Variation 1 to the Proposed Waikato Regional Plan Change 1 (Healthy Rivers/Wai Ora) [Variation 1]

Auckland/Waikato Region
156 Brymer Rd, RD 9, Hamilton 3289, New Zealand. Telephone (07) 849 1666 Facsimile (07) 849 1648
Email: admin@awfg.org.nz www.fishandgame.org.nz



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Form 5

To: Science and Strategy – Policy
Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3240

Email: healthyivers@waikatoregion.govt.nz

Name of Submitter: Auckland Waikato Fish and Game; Eastern Region Fish and Game (Fish and Game).

Submission on Variation 1: This is a submission on the following proposed variation to a proposed plan change: Variation 1 to the Proposed Waikato Regional Plan Change 1 notified on 10 April 2018 (**Variation 1**).

Trade competition: Pursuant to Clause 6 of Schedule 1 of the Resource Management Act 1991, Auckland Waikato Fish and Game and Eastern Region Fish and Game confirm that it could **not** gain an advantage in trade competition through this submission.

The submission: The specific provisions of the proposal that Fish and Game’s submission relates to are:

- A. Reinstated aspects of Proposed Plan Change 1 (PPC 1), including the withdrawn area and provisions pertaining to that area.
- B. Changes to PPC 1 arising from consultation with Pare Hauraki.
- C. Changes to certain implementation dates in PPC 1.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Fish and Game's submission is:

Provisions supported or opposed:

Fish and Game supports or opposes the specific provisions as detailed in the following pages of this submission and wishes to have them amended as detailed in these pages [pp3 - 27].

Except as modified in this document, all Fish and Game's original submission points on Plan Change 1 (8 March 2017), are sought for the geographical area covered by Variation 1.

Reasons for the submission

The General reasons for this submission are that the decisions sought are necessary to ensure that PPC 1:

- a) Achieves the purpose and principles of the Resource Management Act 1991;
- b) Gives effect to the Vision and Strategy for the Waikato River;
- c) Gives effect to the provisions of the New Zealand coastal Policy Statement 2010;
- d) Gives effect to the National Policy Statement for Freshwater Management 2014.

Further specific reasons for the submission are those detailed in the following pages of this submission [pp 5- 27].

Decisions sought: Fish and Game seeks the following decisions from the local authority:

1. The specific provisions be amended or deleted or retained or substituted as sought in the following pages of this submission [pp 5 -27];
2. Such alternative, consequential or further relief as may be required to give effect to this submission and promote sustainable management.

Hearing: I **wish to be heard** in support of my submission and will consider presenting a joint case at any hearing with other parties presenting on similar matters.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Signed by:

A handwritten signature in blue ink, appearing to read "Ben Wilson".

Ben Wilson
Chief Executive
Auckland Waikato Fish and Game

Date: 23 May 2018

Address for service: Ben Wilson
Auckland Waikato Fish and Game
156 Brymer Road
RD 9
Hamilton 3289

Telephone: 07 849 1666
Email: bwilson@fishandgame.org.nz



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Contents

1. Fish and Game activity in the area covered by Variation 1	5
2. Submission points on specific parts of Variation 1	6
A. Submissions on reinstated aspects of Proposed Plan Change 1.	6
B. Changes to Proposed Plan Change 1 arising from consultation with Pare Hauraki.	21
C. Changes to certain implementation dates in Proposed Plan Change 1.	22
Appendices	26

1. Fish and Game activity in the area covered by Variation 1

1. Fish and Game owns and manages 730ha in the Whangamarino Wetland area, and 74ha around Lake Waikare. The Whangamarino Wetland, Lake Waikare and surrounds are of high significance to Fish and Game.
2. Fish and Game activities in the Whangamarino are guided by s 26Q(1) of the Conservation Act; to maintain and improve the sports fish and game bird resource and advocating for Fish and Game interests in the habitat. Fish and Game has undertaken and continues to undertake work in the Whangamarino and Lake Waikare and associated catchments, including:
 - Creating and maintaining new wetlands;
 - Advocating for wetland protection and access;
 - Establishing and maintaining the Whangamarino weir in partnership with DOC to restore minimum water levels in the wetland which had decreased due to lowering of Waikato River levels.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

3. In addition to the significance of the Whangamarino Wetland and Lake Waikare for game bird habitat and hunting, the north eastern catchment houses trout and trout spawning habitats (in the Matahuru Stream, Mangatangi and Mangatawhiri sub-catchments), as well as other game bird hunting and angling opportunities.

2. Submission points on specific parts of Variation 1

1. Submission points set out below include a description of the relief sought. In the case of each submission point, any relief sought includes any consequential amendments to other provisions of PPC 1 that are necessary to give effect to that relief. Where specific changes to the wording of provisions are included in the relief sought, other wording that achieves the same outcome may also be appropriate.
2. As stated above, in addition to the specific submissions made below, Fish and Game relies on its original submission (8 March 2017).

A. Submissions on reinstated aspects of Proposed Plan Change 1.

3. Following the notification of PPC 1, the north eastern portion was withdrawn on 3 December 2016, resulting in a change to the physical scope of PPC 1. Provisions pertaining to the withdrawn portion were removed and PPC 1 was withdrawn from notification in the north eastern portion. The following submissions on individual provisions of Variation 1 concern the now reinstated aspects of PPC 1, including the provisions pertaining to the area previously withdrawn.
4. Fish and Game submits that the inclusion of the north eastern catchments and the significant Whangamarino Wetland necessitate further amendment to the provisions of PPC 1 in addition to the parts reinstated through Variation 1. Fish and Game makes submissions on provisions where further change is needed, or new provisions which are sought as a result of the expansion in physical scope of PPC 1.

3.11 Waikato and Waipā River Catchments/Ngā Riu o ngā Awa o Waikato me Waipā			
Provision	Support/ oppose	Reason	Relief Sought
Map 3.11-1	Support	1. The withdrawal resulted in sections of FMUs being removed, and removal of parts of catchments. Reinstating the entire Waikato	2. Retain physical extent amended by Variation 1.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		catchment is supported to ensure that all catchments influencing the Waikato and Waipa Rivers are included in PPC 1.	
Map 3.11-1 New: Whangamarino Fresh Water Management Unit	Support	<ol style="list-style-type: none"> 1. As outlined in its original submission, Fish and Game seeks the addition of a new Whangamarino FMU. This primarily relates to the north eastern catchment which, while housing the Whangamarino Wetland complex, comprises Riverine Lake and Lower Waikato FMUs. As such, the significance of the Whangamarino Wetland is not recognised and dealt with in a consolidated manner. 2. The Whangamarino Wetland has experienced a high level of degradation and water quality issues, and is at risk of further degradation. Targets in existing Riverine Lakes FMU and River FMU sub-catchments do not protect or restore the significant values of the wetland. 3. Wetlands, especially large peat bog systems such as Whangamarino, have different process that govern their ecosystem health and are susceptible to different stressors than rivers and lakes. Therefore, halting further degradation of this internationally significant wetland involves catchment specific mitigation measures that require it to have its own FMU. 4. Varying Priority Levels assigned to existing Riverine Lakes FMU and Lower Waikato FMU sub-catchments which drain to the Whangamarino do not reflect the significant values of the wetland or its already degraded state, and the nature of the Whangamarino Wetland as an interconnected system. 	<ol style="list-style-type: none"> 5. Identify and delineate a separate FMU for the Whangamarino Wetland. This should include the entire catchment which drains the Whangamarino Wetland.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

3.11.1 Values and uses for the Waikato and Waipā Rivers/ Ngā Uara me ngā Whakamahinga o ngā Awa o Waikato me Waipā			
Value	Support/ oppose	Reason	Action
3.11.1.1 Mana Atua/ <u>Intrinsic Values</u> <u>The Health and Mauri of the Water;</u> <u>Ecosystem Health</u>	Support with Amendments	<p>1. The values should recognise the significance of the Whangamarino wetland. Consequential amendments are also required if a Whangamarino Wetland FMU is adopted. Policy CA2 of the NPS-FW requires that Councils identify values for each FMU, which must include compulsory values and may include any other values considered appropriate.</p> <p>2. The 4th bullet point is the only narrative which relates specifically to wetlands. The ecosystem services provided by wetlands recognised here are “<i>water purification, refuge, feeding and breeding habitat for aquatic species, habitat for water fowl and other ecosystem services such as flood attenuation</i>”. Recognising ecosystem services is supported, however these services are only provided by wetlands when they meet certain standards of health and extent.</p> <p>3. The value does not adequately characterise ecosystem health. In its original submission, Fish and Game sought that “<i>freshwater standards are set to achieve ecosystem health</i>”. For wetlands, ecosystem health includes the following considerations:</p> <p>a. Artificial flood storage and associated infrastructure can negatively impact wetland ecosystem health. The Whangamarino Wetland is part of the Lower Waikato Flood Protection Scheme.</p>	<p>7. Ensure the values for the Whangamarino Wetland are separately identified and represented.</p> <p>8. Retain the 4th bullet point with addition of words: <i>Wetlands and flood plains provide water purification when healthy, refuge...</i></p> <p>9. Amend to characterise and take into account relevant matters for ecosystem health of wetlands:</p> <ul style="list-style-type: none"> • <u>Wetland ecosystem health is represented by extent, ecological integrity, hydrological integrity and water quality.</u> <p>9. The value should include and recognise that healthy ecosystems support:</p> <ul style="list-style-type: none"> • Bird life; • Trout spawning; • Trout populations and migration; • Inanga spawning. <p>The following additions are sought to accommodate these characteristics:</p> <ul style="list-style-type: none"> • <i>Healthy wetlands support abundant and</i>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>b. Wetland ecosystem health is impacted by hydrological factors and contaminants, particularly phosphorous and sediment in the Whangamarino wetland.</p> <p>c. Healthy wetland ecosystems exhibit low disturbance from sediment, nutrients and water level change and are resilient to environmental disturbance.</p> <p>d. Birdlife is a key indicator of wetland health;</p> <p>e. Poor wetland ecosystem health can exacerbate freshwater degradation, rather than providing water purification.</p> <p>4. The extent and health of wetlands should be maintained and enhanced to support these values.</p> <p>5. The north eastern catchment houses trout and trout spawning (in the Matahuru Stream, Mangatangi and Mangatawhiri sub-catchments). The Waikato mainstem and other tributaries within the north eastern catchment house trout which migrate according to thermal changes and food sources.</p> <p>6. Inanga spawning in Lower Waikato River and tributaries support trout populations.</p>	<p><i>diverse bird populations.</i></p> <ul style="list-style-type: none"> • <i>Healthy rivers and adjacent riparian margins have values as spawning habitat for Inanga and Trout.</i> • <i>Healthy rivers enable migration for spawning and to access food sources.</i>
<p>3.11.1.1 Mana Atua/<u>Intrinsic Values</u> <u>The Health and Mauri of the</u></p>	<p>Support with Amendme nts</p>	<p>1. The narrative does not take into account the natural form and character of wetlands. There are specific aspects of the natural form and character of the Whangamarino Wetland which are of high significance (in the Auckland/Waikato Sports Fish and Game Bird Management Plan) and should be recognised:</p>	<p>2. Amend the narrative description of the values to include wetlands as well as rivers.</p> <p>3. After the second bullet point, add the following:</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

<p><u>Environment;</u> <u>Natural Form</u> <u>and Character</u></p>		<p>a. The wilderness experience of the four peat domes is a key amenity value drawing recreational hunters to the wetland;</p> <p>b. The area is a unique asset for the significant wilderness amenity qualities which are otherwise rare or unavailable to large populations in Waikato and Auckland Regions.</p>	<ul style="list-style-type: none"> • <u>Wetlands provide opportunity for people to experience wilderness.</u>
<p>3.11.1.2 Mana Tangata/Use Values <u>Food gathering/place of food;</u> <u>Mahinga Kai</u></p>	<p>Support with Amendments</p>	<p>1. The narrative recognises the importance of freshwater game species in rivers, but does not include their values in wetlands and lakes.</p> <p>2. Whangamarino Wetland complex is of significance for game bird resource and this value should be recognised.</p>	<p>3. The narrative description of the values should be amended to include wetlands and lakes as well as rivers.</p> <p>4. Amend the second bullet point as follows:</p> <ul style="list-style-type: none"> • <u>The rivers, lakes and wetlands provide for freshwater game and introduced kai species.</u>

<p>3.11.2 Objectives/ Ngā Whāinga</p>			
<p>Objective</p>	<p>Support/oppose</p>	<p>Reason</p>	<p>Action</p>
<p>Objective 6 <i>And</i> Reasons for adopting Objective 6.</p>	<p>Support with amendments</p>	<p>1. Fish and Game supports the reinsertion of Objective 6 which relates specifically to the Whangamarino Wetland, in recognition of its significant values, however the steps listed under a) and b) do not relate to an overarching objective for the Whangamarino Wetland.</p> <p>2. The ‘Reasons for adopting Objective 6’ are supported, including the recognition of the sensitivity of bog ecosystems. However, the significance of the complex as an interconnected whole (i.e., marsh, swamp, fen and bog) should be acknowledged.</p>	<p>7. Re-include Objective 6 and Reasons for adopting Objective 6, with amendments.</p> <p>8. Amend Reasons for adopting Objective 6 <u>...It seeks to recognise that the bog ecosystems (which are particularly sensitive to discharges of contaminants) all wetland ecosystems need protection to protect and restore the bog ecosystems (which are particularly sensitive to discharges of contaminants) over time. ...</u></p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

	<p>3. Pursuant to the NPS-FW, the significant values of wetlands must be protected, while the overall quality of freshwater must be maintained or improved. In addition, the Vision and Strategy requires restoration and protection and the Waikato RPS requires protection and enhancement.</p> <p>4. Fish and Game support the management of contaminant loads entering the Whangamarino Wetland. Management of loads is based on achieving Table 3.11-1 targets.</p> <p>5. Loads to the Whangamarino Wetland need to account for inputs from all flows. The attributes and numeric values in Table 3.11-1 must be sufficient to protect and restore the wetland ecosystem. To ensure protection of the ecosystem, additional attributes must be included for phosphorous and sediment loads.</p> <p>6. The state of the Whangamarino wetland is strongly influenced by both water quality as well as the hydrological regime. This Objective should recognise that water quality and well as quantity need to be managed in order to achieve the overriding objective, consistent with integrated management.</p>	<p>9. Include the following overarching objective as context to steps a) and b): <u><i>The Whangamarino Wetland is restored over the long-term, and protected and enhanced in the short term.</i></u></p> <p>10. Ensure Objective 6 achieves the following:</p> <ul style="list-style-type: none"> a. Protection of the significant values of wetlands, including their ecosystems, hydrological functioning and extent. b. Recognition of the high significance of the Whangamarino wetland complex as a whole and its values (by identifying it as an outstanding fresh water body); c. Manage contaminant loads entering the Whangamarino Wetland by taking account all in-flows. <p>11. Fish and Game has asked in its original submission for a separate objective which recognises the significant values of wetlands. Alternative to the relief requested here, Fish and Game seeks this separate objective includes the above factors.</p> <p><i>Add a new c. "An integrated approach is taken and the hydrological regime of the</i></p>
--	---	---



Statutory managers of freshwater sports fish, gamebirds and their habitats.

			<i>Whangamarino wetland is actively managed to ensure the short, medium and long term targets can be achieved”.</i>
--	--	--	---

3.11.3 Policies/Ngā Kaupapa Here			
Policy	Support/ Oppose	Reason	Action
Policy 6	Support with amendment	<ol style="list-style-type: none"> 1. In its submission on PPC 1, 8 March 2017, Fish and Game sought the word “<i>meaningful</i>” be added to this Policy. Fish and Game now considers that the Policy does not provide appropriate guidance for landowners and plan users around the activities that will or will not generally be granted resource consent. 2. Fish and Game is concerned that Policy 6 may have the effect of landowners presuming land use change and associated discharge consents will be granted without proper consideration of the cumulative effects of such consents. 3. Fish and Game considers that this is not an appropriate approach for managing cumulative effects. Strategy 11 of the Vision and Strategy requires authorities to ‘<i>ensure that cumulative adverse effects on the Waikato River of activities are appropriately managed in statutory planning documents at the time of their review.</i>’ 4. Consideration of potential cumulative adverse effects of the activity for which consent is sought should still be required for applicants who can show a decrease from their existing discharge of a contaminants. Granting consents without such assessment compromises the ability to 	<ol style="list-style-type: none"> 5. Policy 6 needs to provide appropriate direction to decision makers applying Rule 3.11.5.7, and to landowners. 6. Amend Policy 6 to ensure that the cumulative effects of a proposed land use change are considered in addition to any improvement from current discharge levels. 7. Amend Policy 6 as follows: <i>Except as provided for in Policy 16, land use change consent applications that demonstrate an increase in the diffuse discharge of nitrogen, phosphorous, sediment or microbial pathogens will generally not be granted.</i> <i>Land use change consent applications that demonstrate clear and enduring, and <u>meaningful</u> decreases in the diffuse discharge</i>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		achieve restoration and protection of water quality in accordance with values and the swimmable, healthy and food gathering goals of the Vision and Strategy, to achieve the targets sought by Fish and Game in Table 3.11-1, and could allocate a potentially large 'nutrient allowance' to existing polluters.	<i>of nitrogen, phosphorous, sediment or microbial pathogens will generally be granted <u>considered only after assessing the cumulative adverse effects of the whole activity for which consent is sought, against the limits and targets in Table 3.11-1.</u></i>
Policy 8	Support with amendments	<ol style="list-style-type: none"> 1. Fish and Game supports reincluding prioritising Whangamarino Wetland as a priority area. 2. While Policy 8c) indicates that the Whangamarino Wetland is given priority, Table 3.11-2 indicates that some of the sub-catchments affecting the Whangamarino Wetland are only priority 2 or 3. Priority should be reflected in all sub-catchments contributing the Whangamarino Wetland; this addressed below under Table 3.11-2. 	<ol style="list-style-type: none"> 3. Re-include Policy 8 as notified. 4. Ensure all sub-catchments for the Whangamarino Wetland are Priority 1 under Table 3.11-2.
Policy 15	Support with amendments	<ol style="list-style-type: none"> 1. Fish and Game supports the reinsertion of Policy 15 which relates specifically to the Whangamarino Wetland, in recognition of its significance and risk. 2. The scope of Policy 15 is too narrow to achieve meaningful steps in protection and enhancement or long term restoration of the Whangamarino Wetland complex. The significant values of the Whangamarino are not given priority by this policy. The focus of this policy should be expanded to include: <ol style="list-style-type: none"> a. All wetland types represented in the Whangamarino Wetland complex, ie., marsh, swamp, fen and bog; b. The effects of changes in extent and hydrology; 	<ol style="list-style-type: none"> 5. Re-include Policy 15 with amendments. 6. Amend Policy 15 to encompass restoration and protection of all important wetland values within the Whangamarino Wetland complex and set short- and long-term targets. 7. In addition to setting targets, amend the policy as follows: <i>Protect and make progress towards restoration of <u>restore the</u> Whangamarino Wetland by:</i> <ol style="list-style-type: none"> <u>a.</u> Reducing the discharge of nitrogen, phosphorous, sediment and microbial pathogens in the sub-catchments that



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>c. Specific short-term and long-term targets for restoration.</p> <p>3. In addition, the wording of the policy lacks clear direction with the inclusion of “and make progress towards restoration”. This phrase is unclear and should be removed and replaced with “and restore the”. Further, at Policy 15a., “reduce and minimise further loss” enables further loss and should be replaced with “avoid further loss”.</p> <p>4. Policy 15c., “support the implementation of any catchment management plan” is not sufficient as a stand-alone measure to address any of the defects mentioned above. The Policy should first guide the appropriate development of any such management plan for the Whangamarino Wetland catchment, within the limits and targets required to achieve ecosystem health outcomes and Objectives.</p>	<p><i>flow into the wetland; and</i></p> <p><i>b. Reduce and minimise <u>Avoiding further loss of the bog ecosystem; and</u></i></p> <p><i>c. <u>Managing the hydrological regime including the impacts of the Lower Waikato Waipa Flood Control Scheme, to:</u></i></p> <p><i>a. <u>Restore and protect wetland values within the Whangamarino Wetland complex; and</u></i></p> <p><i>b. <u>Provide increasing availability of mahinga kai; and</u></i></p> <p><i>c. Support implementation of any a <u>catchment plan prepared in future by Waikato Regional Council that covers Whangamarino Wetland.</u></i></p>
--	--	--	--

3.11.4: Implementation methods/Ngā tikanga whakatiana			
Method	Support/ oppose	Reason	Action
3.11.4.4	Support with amendments	<p>1. Fish and Game supports the reinsertion of parts of Method 3.11.4.4 included in Variation 1 which relate specifically to the Whangamarino Wetland, in recognition of its significance and risk.</p> <p>2. In order to achieve the protection and restoration of Whangamarino Wetland and/or the amendments recommended above by Fish and Game, specific long and short-term targets for the Whangamarino Wetland are necessary along with specific and tailored implementation</p>	<p>5. Re-include withdrawn parts of Method 3.11.4.4 with amendments.</p> <p>6. Include specific short and long term limits and targets for the Whangamarino Wetland.</p> <p>7. Specify tailored implementation methods as necessary to achieve these limits/targets</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>methods to achieve those targets.</p> <p>3. The method does not give clear guidance for implementation actions to occur where they have already been identified in existing lake management plans or other planning documents. Implementation of existing identified actions should be prioritised over further planning.</p> <p>4. Method a. is to “build on the Shallow Lakes Management Plan”, however implementing the existing objectives and strategies within that Plan should be a priority, and the provision should include clearer direction as to how this is to be achieved.</p>	<p>with reference to existing lake management plans, and actions already identified in the catchment.</p>
New Method – Whangamarino Wetland	Support	<p>1. In the alternative to the changes to Method 3.11.4.4 recommended above, Fish and Game supports the introduction of a new method which specifically addresses the restoration and protection of Whangamarino Wetland.</p>	<p>2. Introduce a method for the Whangamarino wetland which includes targets and implementation methods above under Method 3.11.4.4.</p>

Tables 3.11-1 and 3.11-2

Table	Support/ oppose	Reason	Action
3.11-1 Reinserted and removed text	Support with amendments	<p>1. Fish and Game supports the reinsertion (and removal) of text in Table 3.11-1 as set out in Variation 1.</p> <p>2. Fish and Game is concerned that the proposed attributes, particularly in Waikato tributary sites, do not characterise ecosystem health. Attributes relating to trophic state and other ecosystem health considerations are absent.</p>	<p>5. Re-include withdrawn parts of Table 3.11-1 with amendments detailed below.</p> <p>6. Amend Table 3.11-1 to include attributes, limits and targets which reflect the states sought for reintroduced sites set out in Appendix 2. Amendments should be consistent with amendments sought below</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>3. Long term numeric limits and targets need to be consistent with values and the swimmable, healthy and food gathering goals of the Vision and Strategy. Necessary Attributes, and the thresholds required to achieve desired states for ecosystem health are set out below and in Appendix 1. Recommended ecosystem health states sought for the reintroduced sites are listed in Appendix 2. Limits and Targets for each attribute should be consistent with the desired state for the site.¹</p> <p>4. Details of amendments required to the reintroduced area and sites are listed below.</p>	and thresholds listed in Appendix 1.
3.11-1 New Sites and Limits and Targets	New	<p>1. Include limits and targets for all sub-catchments re-introduced to the scope of the plan. Specifically, sub-catchment numbers 13 (Waikare) and 6 (Port Waikato) do not have limits and targets.</p> <p>2. Limits and targets for Waikare are required to manage the load of contaminants entering Whangamarino Wetland via the Pungarehu Canal.</p>	<p>3. Amend Table 3.11-1 to include limits and targets for all sub-catchments encompassed by Variation 1.</p> <p>4. Amend Table 3.11-1 to include new site of Pungarehu Canal for Waikare sub-catchment.</p>
Trophic State attributes	Amend	<p>1. As proposed, trophic state attributes (TP, TN, and Chll. a) are only present for the Waikato Mainstem sites. Trophic state attributes should be present for tributaries to the Waikato and the Waipa as set out in the Attribute for Periphyton in the NPS-FW, and in order to achieve the swimmable, healthy and food gathering goals of the Vision and Strategy.</p> <p>2. Attribute states need to be consistent across attributes in order to achieve desired states at each site.</p>	<p>3. Include DIN and DRP and periphyton attributes with limits and targets consistent with the swimmable, healthy and food gathering goals of the Vision and Strategy in Waipa River and tributaries.</p> <p>4. Ensure limits are targets for each attribute reflect the same desired ecosystem health state for each site.</p>

¹ These states refine and clarify the amendments sought in Table 3.11-1 of Fish and Game’s original submission (8 March 2017).



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Toxicity attributes	Amend	<ol style="list-style-type: none"> 1. Nitrate should be managed to meet desires for ecosystem health values, based on critical concentration thresholds in rivers which differentiate ecological health states, rather than at toxicity levels. 2. Toxicity attributes need to be consistent with desires for ecosystem health values at each site and consistent across all attributes. 	<ol style="list-style-type: none"> 3. Ensure limits are targets for each attribute reflect the same desired ecosystem health state for each site. 4. Manage Nitrate for ecosystem health instead of toxicity.
Clarity	Amend	<ol style="list-style-type: none"> 1. Clarity attributes should be included at all sites. 2. Clarity short and long term limits and targets should be set to achieve values, including ecosystem health and swimming and mahinga kai / fishing values. Trout condition is closely correlated with clarity in the Waikato River.² 	<ol style="list-style-type: none"> 3. Include a Clarity target/limit at the Mercer Bridge site. 4. Amend clarity limits/targets to be set according to specific values, including; <ol style="list-style-type: none"> a. 2m for trout fishing values (trout condition is closely correlated with clarity in the Waikato River) in the mainstem Waikato.³ b. 3.75 m – 5 m for trout spawning and significant trout fisheries.⁴
New Ecosystem health attributes	New	<ol style="list-style-type: none"> 1. Fish and Game is concerned that the proposed attributes, particularly in Waikato tributary sites, do not characterise ecosystem health. 2. Relevant ecosystem health considerations are absent in the attributes, particularly for tributary waterways. Numeric limits and targets need to be consistent with the swimmable, healthy and food 	<ol style="list-style-type: none"> 4. Amend Table 3.11-1 to include new attributes with numeric limits and targets consistent with the swimmable, healthy and food gathering goals of the Vision and Strategy, including:

² This relationship has found in Waikato River using annual black disc data from the Waipapa Dam by Daniel, A 2018. Auckland/Waikato Fish and Game.

³ Ausseil, O. 3013, Recommended biological and water quality limits or trout fishery and trout spawning in the Wellington Region; This relationship has found in Waikato River, Lake Arapuni using annual black disc data from the Waipapa Dam by Daniel, A 2018. Auckland/Waikato Fish and Game.

⁴ Hay J, Hayes J, Young R 2006. Water quality guidelines to maintain trout fishery values. Prepared for Horizons Regional Council. Cawthron Report No. 1205



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>gathering goals of the Vision and Strategy.</p> <p>3. Trophic state attributes and limits and targets for nitrogen and phosphorous have been set for the Waikato River, however these are absent for the Waikato tributaries and the entire Waipa River. Dissolved Nitrogen and Phosphorous should be included for these sites to enable management for ecosystem health values, and to be consistent with the swimmable, healthy and food gathering goals of the Vision and Strategy. This is required pursuant to the Note on Periphyton for Rivers, Appendix 2 NPS-FM. In addition, Periphyton should be included for hard-bottomed sites.</p> <p>4. New attributes to manage for ecosystem health should include:</p> <ul style="list-style-type: none"> • Nitrate and DRP which have critical concentration thresholds in rivers which have been shown to correspond to widely applied MCI quality classes differentiating four ecological health states⁵; • Observed/Expected MCI (the fraction of current MCI divided by the predicted reference MCI to account for natural spatial variation⁶); • Deposited sediment in hard bottomed streams (using a relative measure to account specific characteristics of streams in the catchment). 	<p>a. Nitrate and DRP attributes, with limits as set out in Appendix 1;</p> <p>b. Observed/Expected MCI (the fraction of current MCI divided by the predicted reference MCI to account for natural spatial variation), with limits as set out in Appendix 1;⁷</p> <p>c. Deposited sediment in hard bottomed streams (using a relative measure to account specific characteristics of streams in the catchment);</p> <p>5. These amendments would constitute relief for Waikato Tributaries and the entire Waipa River.</p> <p>6. Include Estuary Trophic Index for the Waikato River Estuary, in the Port Waikato sub-catchment (9).</p>
--	--	---	---

⁵ Death, Russell G., Jordan, C., Magierowski, R., Tonkin, J., Canning, A. Clean but Not Green: A Weight of Evidence Approach or Setting Nutrient Criteria in New Zealand Rivers. Rep. N.p.: Massey U, n.d. Print.

⁶ Clapcott, J. E., Goodwin, E. O., Snelder, T. H., Collier, K. J., Neale, M. W., & Greenfield, S. (2017). Finding reference: a comparison of modelling approaches for predicting macroinvertebrate community index benchmarks. New Zealand Journal of Marine and Freshwater Research, 51(1), 44-59

⁷ Ibid.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<ul style="list-style-type: none"> • Estuary Trophic Index should be used for the Waikato River Estuary, in the Port Waikato sub-catchment (9). 	
Limits and Targets for Whangamarino	New	<ol style="list-style-type: none"> 1. To recognise the significant ecosystem health values of the Whangamarino Wetland, management should include specific attributes limits and targets. 2. Fish and Game supports the use of specific short and long term targets for the Whangamarino wetland which manage attributes affecting the restoration and protection of wetland values within the Whangamarino Wetland. 3. Fish and Game seeks that for the sites now included which flow into the Whangamarino Wetland, further amendment be made to include attributes for sediment and phosphorous. 	4. Amend to include specific attributes, limits and targets to restore and protect the Whangamarino wetland ecosystem, including sediment and phosphorous.
Table 3.11-2 Reinserted and removed text	Support	1. Fish and Game supports the reinsertion (and removal) of text in Table 3.11-2 as set out in Variation 1.	2. Re-include withdrawn parts of Table 3.11-2 with amendments detailed below.
Table 3.11-2 Priority	Amendments sought	3. Varying levels of Priority do not give effect to Objectives, Policies designed to ensure implementation affecting Whangamarino Wetland occurs as a priority.	4. Amend so that all sites within the Whangamarino FMU are Priority 1.

Part D: Consequential amendments to Waikato Regional Plan/Ngā whakatikanhanga ka hua ake mā roto i te Mahere ā-Rohe a Waikato			
Provision	Support/ oppose	Reason	Action
Consequential amendments to 3.6 Damming and	Amendment sought	1. Further amendment is required to reflect the significance of the Whangamarino Wetland and to implement the objectives of PPC1, and the amendments sought by Fish and Game.	3. Amend 3.6 Policy 2 as follows: <i>Manage the damming and diverting of water in perennial water bodies in a manner that ensures: a) Adverse effects on surface water</i>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

<p>Diverting</p>		<p>2. The approach of Policy 4 of “encouraging” certain activities is not sufficient to ensure protection of the Whangamarino Wetland. A higher standard is required.</p>	<p><i>bodies that are inconsistent with the policies in Section 3.2.3 and 3.11.3 of this Plan are avoided as far as practicable and otherwise remedied and mitigated.</i></p> <p>4. Amend 3.6 Policy 4 as follows: <i>Wetlands and Peat Lakes Enhance or maintain the extent and quality of the Region’s wetlands by encouraging activities that will either maintain or reinstate agreed water levels in wetland areas or peat lakes. Enhance and maintain the extent and quality of the Whangamarino Wetland by implementing the methods set out in Section 3.11.3 of the Plan.</i></p> <p>5. Amend 3.6 rules so that they are the most appropriate way to achieve the objectives in the Plan as amended by provisions of chapter 3.11 by including: <i>for Whangamarino wetland, Section 3.11.2, Objective 6 and Section 3.11.3, Policy 15.</i></p>
<p>Consequential amendments to 3.7 Wetlands</p>	<p>Support</p>	<p>1. Fish and Game support the inclusion of the reinserted table.</p> <p>2. Further amendment is required to reflect the significance of the Whangamarino Wetland and to implement the objectives of PPC 1.</p>	<p>3. Retain as notified subject to amendments sought in Fish and Game’s original submission.</p> <p>4. Amend 3.7 Policy 2 as follows: <i>Use a mixture of non-regulatory and regulatory methods (including education and</i></p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

			<i>incentives) to achieve an increase in the extent and quality of the Region's wetlands.</i>
--	--	--	---

B. Changes to Proposed Plan Change 1 arising from consultation with Pare Hauraki.

1. Variation 1 includes amendments to PPC 1 which have been incorporated as an outcome of consultation with Pare Hauraki. Fish and Game submits on specific parts of these amendments below.

Provision	Support/oppose	Reason	Action
Values	Support	1. Amendments to values include recognition of values as being relevant to wetland and springs as well as rivers. Fish and Game support this recognition.	2. Retain as notified.
Reasons for adopting Objective 1	Support	1. Fish and Game supports recognition that Objective 1 sets the overall contest for what is to be achieved in terms of water quality improvements and that there is no hierarchy of Objectives.	2. Retain as notified.
Reasons for adopting Objective 4	Support	1. Fish and Game supports clarification that the first stage is the short term 10-year period.	2. Retain as notified.
Policy 5	Support with amendment	<p>1. The change in wording clarifies that the time delay is intended to inherently bring innovation and new land practices. This clarification is supported, but further amendment is necessary to give clarity and direction to the agricultural sector and to recognise the other reasons for delay.</p> <p>2. Fish and Game is concerned that the reliance on innovation for future improvements does not give the certainty required as to changes needed. Reliance on innovation and development of new practices is speculative and lacks a clear signal and direction of the changes required to ensure Objectives can be met.</p>	<p>4. Retain proposed amendment, with further amendment.</p> <p>5. Amend to provide clarity and direction to the agricultural sector that reductions will be required in sub-catchments which are overallocated. In some sub-catchments these will be significant and require planning for a range of actions, not limited to innovation and development of new practices.</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		<p>3. Further, Policy 5 does not recognise the other primary reasons for a staged approach, including investment and time taken to implement on-farm changes, and lag between on-land changes and changes in water quality. If these reasons are not identified, PPC1 may not embark on sufficient incremental improvements to achieve its Objectives, or give effect to the NPS-FW and the Vision and Strategy.</p>	<p>6. Amend to recognise that lag times between on-land changes and changes in water quality must also be provided for within the 80 year time frame.</p>
--	--	--	---

C. Changes to certain implementation dates in Proposed Plan Change 1.

1. Variation 1 makes changes to certain implementation dates throughout PPC 1. Fish and Game submits on specific variations to dates below.

Provision	Support/ oppose	Reason	Action
Notification Date: 22 October 2016	Support	<p>1. Variation 1 amends PPC 1 to clarify the notification date as being 22 October 2016 within the explanatory statement and Definition – Tangata Whenua Ancestral Lands. This is the actual date of notification of PPC 1.</p>	<p>2. Retain as notified.</p>
Rule 5.11.5.2(5)	Oppose	<p>1. The rule relates to the annual provision of information on stock numbers, fertiliser use and brought in animal feed. This information is required on the 1 September annually throughout the operation of the plan change, once introduced.</p> <p>2. The requirement originally would see this information being provided >16 months after Variation 1 notification. The proposed variation extends this to >30 months.</p> <p>3. The nature of the information, the requirement for implementation to achieve PPC1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording.</p>	<p>4. Reject the proposed amendment to PPC 1.</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

<p>Rule 5.11.5.3(5a) and (5b)</p>	<p>Oppose</p>	<ol style="list-style-type: none"> 1. The Variation is for the dates for FEPs to be provided to the Council where the activity is under a Certified Industry Scheme. 2. The variation extends the provision of this information by 20 months from approximately 27 months from the date of notification of Variation 1 to 47 months from the date of notification. This is a substantial delay which impedes the ability of PPC 1 to meet its Objectives and short term targets. 3. The nature of the information, the requirement for implementation to achieve PPC 1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording. 	<ol style="list-style-type: none"> 4. Reject the proposed amendment to PPC 1 and ensure sufficient resourcing to ensure implementation of the rule can occur.
<p>Rule 3.11.5.4 (1) and (2)</p>	<p>Oppose</p>	<ol style="list-style-type: none"> 1. The Variation changes the dates at which the Controlled Activity status comes into effect, extending this by 20 months. This is a substantial delay which impedes the ability of PPC 1 to meet its Objectives and short term targets. 2. The nature of the information, the requirement for implementation to achieve PPC 1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording. 	<ol style="list-style-type: none"> 3. Reject the proposed amendment to PPC 1 and ensure sufficient resourcing to ensure implementation of the rule can occur.
<p>Rule 3.11.5.4 (Dates)</p>	<p>Oppose</p>	<ol style="list-style-type: none"> 1. The Variation is for the dates for FEPs to be provided to the Council where the activity is under a Certified Industry Scheme. 2. The variation extends the provision of this information by 20 months from approximately 27 months from the date of notification of Variation 1 to 47 months from the date of notification. This is a substantial delay which impedes the ability of PPC 1 to meet its Objectives and short term targets. 	<ol style="list-style-type: none"> 4. Reject the proposed amendment to PPC 1 and ensure sufficient resourcing to ensure implementation of the rule can occur.



Statutory managers of freshwater sports fish, gamebirds and their habitats.

		3. The nature of the information, the requirement for implementation to achieve PPC 1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording.	
Rule 3.11.5.5	Oppose	<p>1. The Variation changes the dates at which the Controlled Activity status comes into effect, extending this by 20 months. This is a substantial delay which impedes the ability of PPC 1 to meet its Objectives and short term targets.</p> <p>2. The nature of the information sought, the requirement for implementation to achieve PPC 1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording.</p>	3. Reject the proposed amendment to PPC 1 and ensure sufficient resourcing to ensure implementation of the rule can occur.
Schedule A(1)	Oppose	<p>1. Schedule A contains registration of properties greater than 2 ha with the Waikato Regional Council. Registration requires the provision of straight-forward and unequivocal information which is not subject to rapid change.</p> <p>2. The nature of the information, the requirement for implementation to achieve PPC 1 Objectives and the attainable date originally notified in PPC 1 support retaining original proposed wording.</p>	3. Reject the proposed amendment to PPC 1.
Schedule B(e)	Support with amendment	<p>1. Variation 1 amends the dates to provide a NRP and NRP date to the Waikato Regional Council. The original timeframe for compliance is between a period of 5 – 10 months from notification of Variation 1.</p> <p>2. The prescribed settings for determining an NRP are clear, and the NRP is determined by certified operators (both of which Fish and Game support), however Fish and Game agrees that this timeframe is now tight and that an extension of time may be necessary to ensure accuracy.</p>	<p>3. Retain original timeframes where possible.</p> <p>4. Fish and Game supports an extended timeframe with amendment to the start date, which should be retained as the original start date specified in PPC 1.</p>



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Definition – 75 th percentile nitrogen leaching value	Oppose in part	<ol style="list-style-type: none"> 1. Fish and Game opposes delay which impedes the ability of the Plan Change to meet its Objectives and short term targets. However, this date must be consistent with amendments and reasons sought for Schedule B(e) above. 	<ol style="list-style-type: none"> 2. Retain original timeframes where possible. 3. Amendment should be consistent with Schedule B(e).
--	----------------	--	--



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Appendices

Appendix 1 – Additional Ecosystem Health attributes and limits

Value	Ecosystem health			
Freshwater Body Type	Rivers			
Attributes	Nitrate-nitrogen, dissolved reactive phosphorus, and E. coli			
Attribute State	Numeric Attribute State			
	Dissolved reactive phosphorus (DRP) - Annual median (mg/l)	Nitrate-nitrogen (NO ₃ -N) – Annual median (mg/l)	O/E MCI outcome ^{1,2}	95th percentile of E. coli/100 mL
Excellent	≤ 0.006	≤ 0.11	0.9 or above	≤130
Good	> 0.006 and ≤ 0.01	> 0.11 and ≤0.35	≥0.85 & <0.9	>130 & ≤260
Fair	> 0.01 and ≤ 0.015	> 0.35 and ≤ 0.58	≥0.8 & <0.85	>260 & ≤550
Regional Bottom Line	0.015	0.58	0.8	550
Poor	> 0.015 and ≤ 0.054	> 0.58 and ≤ 1.66	≥0.7 & <0.8	>550 ≤ 1000
Very poor	>0.054	>1.66	<0.70	>1000

1. Applies only to wadable streams and is calculated as the five-year rolling average annual MCI divided by the predicted reference MCI from: Clapcott, J. E., Goodwin, E. O., Snelder, T. H., Collier, K. J., Neale, M. W., & Greenfield, S. (2017). Finding reference: a comparison of modelling approaches for predicting macroinvertebrate community index benchmarks. *New Zealand Journal of Marine and Freshwater Research*, 51(1), 44-59. doi:10.1080/00288330.2016.1265994
2. MCI to be determined using fixed counts with at least 200 individuals. Duggan, I. C., Scarsbrook, M. R., & Quinn, J. M. (2003). Comparison of coded abundance and fixed count rapid assessment techniques for biomonitoring in New Zealand streams. *New Zealand Journal of Marine and Freshwater Research*, 37(1), 23-29. doi:10.1080/00288330.2003.9517143



Statutory managers of freshwater sports fish, gamebirds and their habitats.

Appendix 2

Recommended Long Term Ecosystem health states sites reintroduced to Table 3.11-1

Site	80 year Ecosystem Health State
Waikato River – Mercer Br	
Waikato River Tuakau Br	
Matahuru Stm Waiterimu Road Below Confluence	Good
Waerenga Stm SH2 Maramarua	Fair
Whangamarino River Jefferies Rd Br	Fair
Mangatangi River SH2 Maramarua	Excellent
Mangatawhiri River Lyons Road Buckingham Br	Excellent
Whangamarino River Island Block Rd	Excellent
Whakapipi Stm SH 22 Br	Fair
Ohaeroa Stm SH22 Br	Fair