IN THE MATTER of the Resource Management

Act 1991

AND

IN THE MATTER of PROPOSED PLAN CHANGE

1 to the Waikato Regional Plan - hearing of **BLOCK 1** topics

AND

IN THE MATTER of the hearing of the

submission by WATERCARE SERVICES LIMITED in relation to BLOCK 1 topics

STATEMENT OF REBUTTAL EVIDENCE OF CHRISTOPHER JAMES SCRAFTON

1. **INTRODUCTION**

- 1.1 My name is Christopher James Scrafton. I am a Technical Director Planning at Beca Limited (Beca).
- 1.2 I have outlined my qualifications, experience and commitment to comply with the Environment Court Expert Witness Code of Conduct in my evidence in chief ("EiC").
- 1.3 I have read statements of evidence of all of the expert planning witnesses including those of:
 - (a) Janeen Kydd-Smith (The Waikato and Waipā River Iwi)
 - (b) Dr Philip Mitchell (Oji Fibre Solutions NZ Limited);
 - (c) Helen Marr (Auckland Waikato and Eastern Region Fish and Game);
 - (d) Paul Ryan (Hamilton City Council);
 - (e) Murray Kivell (South Waikato District Council and the Matamata Piako District Council);
 - (f) Richard Matthews (Genesis Energy Limited);

- (g) Grant Eccles (Federated Farmers); and
- (h) Deborah Kissick (Director-General of Conservation).

Purpose and scope of rebuttal evidence

- 1.4 This statement addresses matters raised and recommended modifications to the freshwater values, objectives and Table 3.11-1 in the various planning expert statements of evidence.
- 1.5 In this rebuttal evidence I have identified which recommended changes by other parties I am either in agreement with or in disagreement with.
- 1.6 Specifically, I address the following:
 - (a) Role of values in a regional plan (Section 2).
 - (b) Waikato Regional Plan, including PC1, approach to management of point source discharges (Section 3).
 - (c) Technical errors in the water quality targets / limits (Section 4).
 - (d) Vision and Strategy for the Waikato River (Section 5).
 - (e) Waikato Regional Plan cascade (Section 6).
 - (f) Medium term attribute targets (Section 7).
 - (g) Objectives of PC1 (Section 8).
 - (h) Further recommendations of Mr Ryan (Section 9).

2. THE ROLE OF "VALUES" IN A REGIONAL PLAN

- 2.1 Ms Kydd-Smith considers that the values and uses in Section 3.11-1 should be retained as they helpfully set the scene for the objectives, policies and rules that follow¹. This position is supported by a number of parties, including Mr Matthews, who considers that the values provide the context for the objectives, policies and methods².
- 2.2 For reasons set out in my EiC, I disagree with Ms Kydd-Smith, Mr Matthews and others who consider that the values should be included within the WRP. To summarise, I consider that the inclusion of identified values in the WRP:

² Paragraphs 29 and 30, EiC of Richard John Matthews.

¹ Paragraph 22, EiC of Janeen Anne Kydd-Smith.

- (a) Is not required by the National Policy Statement for Freshwater Management 2014 (Updated 2017) ("NPS:FM"); and
- (b) Is likely to create uncertainty in the for future resource consent processes.
- 2.3 Ms Kydd-Smith and the other planners who support the inclusion of the values do so on the basis that there are benefits in "setting the scene" for the objectives, policies and rules that follow. In my view that should be unnecessary provided that the plan provisions themselves (objectives, policies and methods) are well drafted. Good drafting obviously represents good planning practice.
- I note in my EiC³ that section 67(1) of the Resource Management Act 1991 ("RMA") does not require the values to be included within a regional plan. In other words, the values are not identified as being objectives, policies or rules.
- "Values" are not identified in section 67(2) of the RMA, which lists matters which may be stated in a regional plan; however, they could be (incorrectly) interpreted as being methods. Further, as noted, the NPS-FM contains no requirement that the values be included in a regional plan. Instead, the NPS:FM requires that values be considered and identified in the development of freshwater objectives.
- 2.6 As such, I maintain the view that the values should not be included within the WRP.
- 2.7 As an alternative secondary relief, I have recommended amendments to the "water supply" value and the "commercial, municipal and industrial use" value⁴ and I intend to continue to promote this alternative relief unless the Panel signals that it is inclined to remove the values from PC1 altogether.
- 2.8 I note that Mr Ryan has made recommendations⁵ that, while different, appear to be broadly aligned with relief sought by Watercare. Given the short time frame between statements of EiC and rebuttal statements, I have not been able to discuss these matters with Mr Ryan but will seek to do so in advance of the Block 1 hearings.

³ Paragraph 2.3, EiC of Christopher James Scrafton.

⁴ Appendix A, EiC of Christopher James Scrafton.

⁵ Paragraphs 122 and 163, EiC of Paul Stanley Ryan (Part B - Outcomes: Values and Uses).

3. WAIKATO REGIONAL PLAN (INCLUDING PC1) APPROACH TO MANAGEMENT OF POINT SOURCE DISCHARGES

- 3.1 Dr Mitchell raises a number of concerns regarding how point source discharges are provided for in the Waikato Regional Plan ("WRP") framework and the implications of PC1, noting (amongst other things) that:
 - (a) PC1 has implications for point source discharges⁶.
 - (b) The achievement of the Vision and Strategy already requires all sectors to implement their respective best practice measures forthwith⁷.
 - (c) PC1 unfairly requires point sources to adopt the best practicable option, to apply offsets and to be assessed against the short-term targets of the plan in a manner that could result in those consented activities bearing the future burden to improve water quality8.
 - (d) There is an existing emphasis in policy terms for meaningful improvements in water quality to be achieved⁹.
- 3.2 I agree with Dr Mitchell with regard to the above comments. With regard to the adoption of the best practicable option and offsetting, I intend to address these matters in more detail in the Block 2 hearings.
- 3.3 With regard to points (b) and (d) above, I agree with his view and note that the section 32 Reporting Officers consider that:

To achieve the outcome values, long term and short-term freshwater objectives, and manage and make reductions, all point source dischargers will be required over time to continue to make reductions through the adoption of mitigation options and/or (as proposed in Plan Change 1), undertake offsetting measures¹⁰.

3.4 I consider that, as a result of the impact of the policy emphasis referred to by Dr Mitchell, point source dischargers are already required to make reductions as applicants for point source discharge resource consents are required to have regard to the Vision and Strategy for the Waikato River and the NPS: FM. From my experience as the lead planner for the Pukekohe WWTP Upgrade Project, whether a point-source discharge is able to be

Paragraph 3.3, EiC of Phillip Hunter Mitchell.
 Paragraph 3.4, EiC of Phillip Hunter Mitchell.

⁸ Paragraph 4.2(e), EiC of Phillip Hunter Mitchell.

⁹ Paragraph 5.2, EiC of Phillip Hunter Mitchell.

¹⁰ Paragraph E.5.7, section 32 Report.

consistent with the Vision and Strategy is a key, if not the key, matter that is considered for a point source discharge consent application.

- In my opinion, there is no policy void regarding the principle of improving water quality and there are several examples of resource consent decisions made by WRC that reflect a requirement to improve water quality¹¹. There is, however, arguably a policy void in terms of identifying how much improvement is appropriate in any given resource consent process. From my experience, the level of improvement needs to be proportional to the impact of the proposal, but determining this proportionality is currently highly subjective. I discuss the issue of a lack of guidance regarding proportionality in more detail below.
- 3.6 Dr Mitchell also considers that PC1 needs to clearly establish consistent ground rules for the management of both point and diffuse source discharges¹². I agree with Dr Mitchell, noting that, as set out by Mr Matthews, point source discharges are already controlled through resource consent processes and the existing policy framework of the WRP¹³. However, I consider the WRP (including as proposed to be amended by PC1) only provides partial coverage of the matters that should be assessed as part of a resource consent application for a point source discharge.

Overview of policy framework for point source discharges

- 3.7 At present there are two objectives¹⁴ and 14 policies¹⁵ in the WRP that are directly relevant to point source discharges. There are other objectives and policies of the WRP that are less clearly relevant but nonetheless very important for a point source discharge consent.
- 3.8 As set out at **Appendix A**¹⁶ to this statement of evidence, a review of the policy framework relevant to a point source discharge in the Waikato Region identifies the following key themes which I will now address:

Benefits of infrastructure -

3.9 This is specifically recognised in the National Policy Statement on Urban Development Capacity ("NPS:UDC"), the Waikato Regional Policy Statement ("WRPS") and to a lesser degree the WRP.

¹¹ E.g. Pukekohe (2017) and Te Awamutu (2018).

¹² Paragraph 4.3, EiC of Phillip Hunter Mitchell.

¹³ Paragraph 26, EiC of Richard John Matthews.

¹⁴ Objectives 3.1.2 and 3.5.2.

¹⁵ Policies 1.2.4.6, 3.2.3.1 – 3.2.3.8 and 3.5.3.1 – 3.3.5.7.

¹⁶ Assessment of Policy Framework for Pukekohe Wastewater Treatment Plant Project.

3.10 In my opinion, the WRP fails to fully give effect to either the NPS: UDC or the WRPS on this matter by limiting the recognition of the benefits of infrastructure to existing lawfully established infrastructure. In my view, the WRP is required to recognise the benefits of future infrastructure and associated water takes and discharges in providing for future growth.

Effects on water quality -

- 3.11 This is specifically recognised in the Vision and Strategy for the Waikato River, NPS:FM, the WRPS and the WRP.
- 3.12 In my opinion, while the WRP (including PC1) seeks to give effect to the NPS:FM and the Vision and Strategy, the WRP does not adequately recognise the importance of the assimilative capacity of water bodies. This is particularly important for municipal wastewater treatment plants and the associated discharges which require mixing zones in order to meet water quality targets at the end of the zone of reasonable mixing.

Cultural effects -

3.13 Cultural effects are specifically recognised in the Vision and Strategy for the Waikato River and the WRPS. The WRP and PC1 also include specific objective and policies to manage the cultural values of water bodies. In my view, this theme is sufficiently covered by the WRP.

Social effects including recreation -

3.14 These are recognised in the Vision and Strategy for the Waikato River, the NPS: FM and the WRPS. The WRP recognises recreation through identifying a Contact Recreation Water Class and applying this to water bodies. However, I consider that the WRP (including PC1) does not adequately recognise the benefits of municipal wastewater discharges and water takes for protecting public health.

Ecological effects -

- 3.15 These are recognised in the Vision and Strategy for the Walkato River, the NPS: FM and the WRPS. The WRP includes specific objectives and policies on aquatic ecosystems and PC1 includes a freshwater value on ecosystem health. In my view, this theme is sufficiently covered by the WRP.
- 3.16 As noted in my EiC, it is my opinion that PC1 should be amended to reflect the lack of policy coverage identified above.

No assumption regarding point source discharges to water

3.17 With regard to point source discharges, I also note that the section 42A reporting officers made the following statement¹⁷:

With regards to the disposal of treated wastewater, Officers consider that it should not be assumed that rivers are always the appropriate receiving environment as, unlike stormwater, there can be alternative discharge options.

- 3.18 I do not consider that there is, or has ever been, any assumption that rivers are always the appropriate direct receiving environment for a point source discharge. Neither the RMA nor any policy statement makes this assumption. In my view the policy framework requires robust consideration of options as part of any point source discharge. For example:
 - (a) Section 105 of the RMA requires a discharge to water (or to land that may result in contaminants entering water) to have regard to any possible alternative methods of discharge, including discharge into any other receiving environment.
 - (b) Clause 4(6)(1)(d) of the 4th Schedule to the RMA requires a discharge of a contaminant to provide a description of "any possible alternative methods of discharge, including discharge into any other receiving environment."
 - (c) The definition of the term "best practicable option" includes having regard to the financial implications, and the effects on the environment, of that option when compared with other options.
- 3.19 I therefore consider that the RMA clearly signals that point source discharges need to demonstrate that consideration has been given to the impacts of a range of alternative options in various receiving environments as part of the resource consent process. From my experience, unless circumstances dictate that it is not feasible, it would be inappropriate to not consider discharges to land as an alternative to discharges to water bodies.
- 3.20 In addition to the above, I also note that the WRP includes a specific policy which promotes land discharges where the adverse effects are less than those of a direct discharge to water¹⁸.
- 3.21 Irrespective of the above, my experience with consenting the Pukekohe WWTP and other WWTPs around New Zealand is that land-based options

¹⁸ Policy 3 in Section 3.5.3 of the Waikato Regional Plan.

¹⁷ Paragraph 262, section 42A Report.

are considered in the alternative assessment but are often discounted due to a range of factors including cost, the amount of land required, unsuitable soil conditions or topography.

4. TECHNICAL ERRORS IN THE WATER QUALITY TARGETS / LIMITS

- 4.1 As noted in my EIC¹⁹, Mr Hall has identified a number of technical concerns regarding the water quality targets / limits of Table 3.11-1. I rely on Mr Hall's advice in relation to the technical errors underpinning the water quality targets and limits of Table 3.11-1 that he has identified.
- 4.2 Through his rebuttal evidence, Mr Hall notes that there are a number of other technical experts with similar concerns regarding the robustness of the science that has informed the water quality targets and limits of Table 3.11-1. Notwithstanding these concerns, I note that the section 32 report states that²⁰:
 - (a) There is sufficient information on which to base the proposed policies.
 - (b) Regarding maintaining water quality overall, there is neither uncertain or insufficient information. The best available information has been used to understand the contribution of point source contaminants.
 - (c) If no action is taken in Plan Change 1 then there will be further degradation of water quality in the catchment and the objectives of the Vision and Strategy and NPS-FM will not be met.
- 4.3 As a result of my review of the planning evidence, I note that a number of experts share my concerns regarding the implications of errors in the water quality targets / limits but, in most cases, have focussed more on the plan making implications. For example:
 - (a) Mr Eccles considers that WRC has acted in the face of uncertainty without properly assessing the risk of doing so as required by section 32(c) of the RMA²¹. Mr Eccles provides an example, stating that the modelling relied upon by the CSG was based on Overseer and other modelled numbers as well as numerous assumptions about what the policy mix might deliver²².

¹⁹ Paragraph 2.6, EiC of Christopher James Scrafton.

²⁰ Paragraph E.5.7, section 32 Report.

²¹ Paragraph 45, EiC of Grant Robert Eccles.

²² Paragraph 46, EiC of Grant Robert Eccles.

- (b) Mr Kivell considers that:
 - (i) Given such uncertainties about the data available for modelling future states; its interpretation by the specialists and the continuing need for more data; and
 - (ii) The scale of potential adverse economic and social effects presently identified from the technical reports;

it is appropriate to adopt a cautionary approach to the expression of policy²³.

4.4 I agree with the concerns raised by Mr Eccles and Mr Kivell (and others).

Table 3.11-1 and underpinning science

- 4.5 With regards to the function of Table 3.11-1 in PC1, I have focussed my EIC on:
 - (a) Identifying the manner in which, in my opinion, the water quality targets / limits are likely to be applied as part of a section 42A reporting officer's assessment of a resource consent application for a point source discharge as currently drafted²⁴.
 - (b) Noting that, if a single resource consent application is required to demonstrate how those targets / limits are to be achieved it is, in my opinion, not practicable, reasonable or realistic²⁵.
 - (c) Noting that I consider each resource consent application should be required to demonstrate how it contributes towards the achievement of the water quality targets / limits but that, as currently drafted, there is little or no guidance as to how each individual application will be considered in terms of its own contribution towards the achievement of the water quality targets / limits²⁶. In other words, there is little or no guidance to an applicant as to how much "protection" and "restoration" is required in any particular resource consent process.
- 4.6 In my opinion, uncertainty regarding the robustness of the science that has informed the water quality targets / limits further increases my concerns

²³ Paragraph 49, EiC of Murray Spencer Kivell.

²⁴ Paragraphs 5.2 – 5.6, EiC of Evidence of Christopher James Scrafton.

²⁵ Paragraph 5.7, EiC of Christopher James Scrafton.

²⁶ Paragraph 5.8, EiC of Christopher James Scrafton.

regarding future resource consent processes in addition to the process related concerns raised by Mr Eccles, Mr Kivell and others.

- 4.7 Having regard to the above, I consider that further:
 - (a) Technical analysis is required to better validate the water quality targets / limits in Table 3.11-1;
 - (b) Analysis of the risk of acting or not acting is required in accordance with section 32AA of the RMA as there is clearly uncertainty and/or insufficient information about the subject matter of the provisions; and
 - (c) Consideration of the interrelationship between Objectives 1 and 3 and Table 3.11-1 is required to recognise the uncertainty regarding the science that has informed the water quality targets / limits in Table 3.11-1.
- 4.8 In addition to the above, I also consider that further guidance is required within PC1 to enable resource consent applicants to better understand their obligations for proportional contribution towards water quality "protection" and "restoration."

5. **VISION AND STRATEGY FOR THE WAIKATO RIVER**

5.1 I note that the Panel have raised the following question with the s42A Reporting Officer:

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

- 5.2 In my view, Mr Kivell provides helpful commentary on this issue in paragraphs 63 to 67 of his EiC. I broadly agree with Mr Kivell that the objectives of the Vision and Strategy:
 - (a) Identify a baseline that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activity;
 - (b) Recognise that there are a range of relationships with the Waikato River;

- (c) Identify a number of desirable approaches to management; and
- (d) Identify a diverse set of possibly competing outcomes to be achieved.
- 5.3 I agree with Mr Kivell and the concerns raised by the Panel that there are potentially competing outcomes within the objectives of the Vision and Strategy of the Waikato River²⁷.

Resource consent hearing focus on Objective K

5.4 However, from my experience as the lead planner for the Pukekohe WWTP upgrade project, the dominant objective in a resource consent process assessing consistency with the Vision and Strategy is Objective K:

The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.

- 5.5 Considerable focus was placed on Objective K by the WRC, submitters and the decision makers in the Pukekohe WWTP upgrade hearing. That project was able to demonstrate consistency with Objective K and the wider Vision and Strategy for the Waikato River and was reliant on (amongst other things):
 - (a) An improvement in downstream water quality;
 - (b) Recognition of the importance of the zone of reasonable mixing;
 - (c) Adopting the best practicable option; and
 - (d) Significant financial investment by Watercare.

6. **REGIONAL PLAN "CASCADE"**

- 6.1 Mr Kivell has raised concerns regarding the requirement of the section 42A reports being segmented by blocks, noting that there is limited capacity for parties to assess the merits of the objectives in the absence of scope to consider policies and implementation methods²⁸.
- 6.2 Dr Mitchell also shares these concerns regarding the separation of consideration of objectives from the consideration of policies through the

²⁷ Paragraphs 62 - 68, EiC of Murray Spencer Kivell.

²⁸ Paragraphs 38 - 39, EiC of Murray Spencer Kivell.

section 42A reporting process²⁹. In my view, it is difficult to separate analysis of objectives from the policies and associated methods.

- I agree with the concerns raised by Mr Kivell and Dr Mitchell and note that it is for these reasons that, I outlined in my EiC potential amendments to Policy 10 with respect to regionally significant infrastructure. In this scenario, I noted an "outcome gap" (which is considered in Block 1) in the objectives where a matter was identified in the "values", somewhat provided for in the policies (which is considered in block 2) but with no clear objective. I consider that this is a clear demonstration of the issue raised by Mr Kivell and Dr Mitchell, being that it is difficult to separate analysis of objectives from the policies and associated methods.
- 6.4 Further to the above, and looking forward to the Block 2 hearing process, it is difficult and potentially inefficient to assess policies without a clear steer on the direction of the objectives.

7. **MEDIUM TERM ATTRIBUTE TARGETS**

- 7.1 Dr Mitchell, Ms Marr and Ms Kissick have recommended adding a mediumterm goal. Each recommendation is different in detail but aligned in principle. In terms of potential relief that has been sought:
 - (a) Dr Mitchel recommends a medium-term goal of 30 per cent achievement over a thirty-year period.³⁰
 - (b) Ms Marr recommends a medium-term approach based on the contaminant. 31
 - (c) Ms Kissick recommends a medium-term target at 20 years in which a 20 per cent improvement in water quality toward the 80-year targets be set for this interim target³².
- 7.2 In my view, there is logic to the concept of a medium-term "scenario" but only if:
 - (a) There is a time frame for the achievement of the short-term targets; and
 - (b) Appropriate targets and/or limits are confirmed.

²⁹ Paragraph 4.1, EiC of Phillip Hunter Mitchell.

³⁰ Paragraph 7.3, EiC of Dr Philip Hunter Mitchell.

³¹ Paragraphs 119 - 136, EiC of Helen Marie Marr.

³² Paragraphs 280 - 287 EiC of Deborah Helen Kissick

- 7.3 My current understanding is that PC1 does not include a time frame for the achievement of the short-term targets and, as such, I do not support the inclusion of a "medium term goal / target". My reasons regarding PC1 not currently including a time frame for achievement of the short-term targets are set out below.
- 7.4 In my EiC, I recommended that Objective 3 be amended to align with my recommended changes to Objective 1³³ based on the understanding that Objective 3 operates in a manner similar to Objective 1 (i.e., that Objective 3 requires the achievement of the short-term targets by 2026). In this regard, I note the comments of Mr Hall in his rebuttal evidence in which he provides an example from his experiences where the WRC reporting officers' expressed the view (with respect to PC1) that a 10% improvement over 10 years (with reference to the short term target in Table 3.11-1) would be an appropriate yardstick against which to measure an improvement in water quality³⁴ in the context of consistency with the Vision and Strategy for the Waikato River.
- 7.5 Notwithstanding the above, I note that PC1 states that:

Because of the extent of change required to restore and protect water quality in the 80-year timeframe, the CSG adopted a staged approach. This approach breaks the required improvements into a number of steps, the first of which is to put in place and implement the range of actions in a 10 year period that will be required to achieve 10 percent of the required change between current water quality and the long term water quality in 2096³⁵.

7.6 The section 42A reporting officers elaborate on the above as follows:

The Officers do not recommend including a date for achieving the short-term targets in Table 3.11-1. As outlined in PC1 the plan sets out actions that are to be put in place and implemented by 2026 to reduce contaminant discharges, where those actions are sufficient to achieve the short-term water quality targets. It is understood that the steps taken in the first 10 years may not be fully reflected in the water quality improvements as measured in the receiving waterbodies due to "variable response times of the system to implementation of mitigations³⁶.

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³³ Paragraph 2.15, EiC of Christopher James Scrafton

³⁴ Paragraph 9.1, Rebuttal Evidence of Garrett John Hall.

³⁵ Second paragraph, page 15, PC1

³⁶ Paragraph 557, S42A Report

- 7.7 Having regard to the above, in my opinion, the outcome sought by Objective 3 is essentially that actions are to be implemented by 2026 to achieve ten percent of the long-term water quality targets by an unspecified date (which could in practice be the "medium term dates" recommended my Dr Mitchell, Ms Marr and Ms Kissick). With regard to the "actions" to be put in place, I understand these to be currently limited to the suite of implementation methods proposed by PC1 relating to the management of diffuse discharges.
- I consider that this is a particularly problematic objective for a reporting officer to assess consistency with when assessing a resource consent application for a point source discharge consent. The easiest course of action for a reporting officer is to simply adopt the position that a resource consent applicant for a point source discharge must achieve ten percent of the long-term water quality targets to be consistent with Objective 3. As noted above, this is already happening in practice. In my view, this application of Objective 3 is inconsistent with the intent of PC1 and the understanding of the section 42A reporting officers.
- 7.9 I consider that Objective 3 needs to be redrafted to ensure it is clear that Objective 3 is not relevant to, and therefore should not be assessed as part of, a resource consent application for a point source discharge consent.
- 7.10 Further to this, I understand Objective 3 to be a means to achieve Objective 1. In this regard, in my view, the intent of Objective 3 can be better achieved by way of a policy as opposed to an objective.

8. **OBJECTIVES OF PC1**

- 8.1 A number of experts have recommended amendments to the objectives in PC1 either by way of narrative or by providing track change amendments. Other experts seek the retention of the objectives as notified. From my review of the expert planning evidence, it is clear that there are a range of aligned and divergent views.
- 8.2 I discuss Objective 3 above.
- 8.3 With regards to Objective 1, I provided recommended amendments to Objective 1 in my EiC and I have signalled the need for further amendments throughout this statement of evidence. To summarise, I consider that the objectives need to be amended to:

- (a) Provide guidance as to the proportionality required for any individual resource consent applicant for contributing towards protection and restoration of water quality³⁷;
- (b) Better reflect the aspirational nature of the water quality targets / limits³⁸;
- (c) Better recognise the importance of the assimilative capacity of water bodies³⁹:
- (d) Recognise that the water quality targets / limits are to be measured at the identified state of the environment monitoring sites⁴⁰.
- 8.4 With regards to (a), as set above, in my view further technical work is required prior to being able to provide recommended drafting with regards to providing guidance as to the proportionality required for any individual resource consent applicant for contributing towards protection and restoration of water quality.
- 8.5 With regard to (b), (c) and (d) above, I maintain the view that the recommendations set out within my EiC adequately address these issues. Notwithstanding this, I note that there are a number of experts who appear to have similar views to mine. For example, I see many similarities between my recommendations and those of Mr Ryan. Given the short time frame between primary statements of evidence and rebuttal statements, I have not yet had the opportunity to discuss these matters with Mr Ryan but will seek to do so in advance of the Block 1 hearings with a view to being able to present an aligned view for the Panel.

9. FURTHER RECOMMENDATIONS OF MR RYAN

9.1 Mr Ryan has recommended amendments to the Explanatory Note⁴¹ to clarify that the limits and targets are not to be achieved when the current consent expires, rather this is when the new water quality targets will apply from⁴². I agree with Mr Ryan's recommendation in principle, however, consider that his recommended amendment is still somewhat ambiguous. As such, I recommend the further amendments set out below (amendments to Mr Ryan's recommended version strikethrough – deletions, underline – additions):

³⁷ Paragraphs 5.7 and 5.8, EiC of Christopher James Scrafton.

³⁸ Paragraph 7.8, EiC of Christopher James Scrafton.

³⁹ Paragraph 7.8, EiC of Christopher James Scrafton.

⁴⁰ Paragraph 7.8, EiC of Christopher James Scrafton.

⁴¹ Paragraph 6, Page 19, under the sub-heading "Full achievement of the Vision and Strategy will be intergenerational", PPC1.

⁴² Para 18, EiC of Paul Stanley Ryan.

Municipal and industrial point source dischargers will also be required to revise their discharges in light of the Vision and Strategy and the water quality objectives, and subcatchment limits^ and targets^ that have been set.

This new requirement will apply once as the current consent terms confirmed prior to [insert date PPC1 becomes operative] expire. It may take further time over the 80 year period, for the 80 year targets specified in Table 3.11.1-1 to be achieved.

Chris Scrafton

26 February 2019

Appendix A – Assessment of Policy Framework

1. Benefits of Infrastructure

Objective / Policy Number	Key Provisions		
Objective OA1, National Policy	Effective and efficient urban environments that		
Statement on Urban	enable people and communities and future generations to provide for their social, economic,		
Development Capacity	cultural and environmental wellbeing		
Objective OC1, National Policy	Planning decisions, practices and methods that enable urban development which provides for the		
Statement on Urban	social, economic, cultural and environmental wellbeing of people and communities and future		
Development Capacity	generations in the short, medium and long-term,		
Objective OD1, National Policy	Urban environments where land use, development, development infrastructure and other		
Statement on Urban	infrastructure are integrated with each other		
Development Capacity			
Objective OD2, National Policy	Coordinated a	and aligned planning decisions within and across local authority boundaries	
Statement on Urban			
Development Capacity			
Policy PA1, National Policy	Local authorities shall ensure that at any one time there is sufficient housing and business land		
Statement on Urban	development	capacity according to the table below	
Development Capacity			
	Short	Development capacity must be feasible, zoned and serviced with	
	term	development infrastructure.	
	Medium	Development capacity must be feasible, zoned and either:	
	term	a) Serviced with development infrastructure, or	
		b) The funding for the development infrastructure required to	
		service that development capacity must be identified in a Long	
		Term Plan required under the Local Government Act 2002.	
	Long term	Development capacity must be feasible, identified in relevant plans and	
		strategies and the development infrastructure required to service it	
		must be identified in the relevant Infrastructure Strategy required under	
Dollar A2 Notice of Dollar	\//b o o :== = ! :! : : :	the Local Government Act 2002.	an a alturita
Policy A3, National Policy	When making planning decision that affect the way and the rate at which development capacity is		
Statement on Urban		ision-makers shall provide for the social, economic, cultural and environment specific and communities and future generations, whilst having particular reg	
Development Capacity		eople and communities and future generations, whilst having particular reg	
		ng for choices that will meet the needs of people and communities and futu	IE

Objective / Policy Number	Key Provisions
	generations for a range of dwelling types and locations, working environments and places to
	locate businesses;
	b) Promoting the efficient use of urban land and development infrastructure and other
	infrastructure; and
	c) Limiting as much as possible adverse impacts on the competitive operation of land and development markets
Objective 3.2, Waikato Regional	Recognise and provide for the role of sustainable resource use and development and its benefits in
Policy Statement	enabling people and communities to provide for their economic, social and cultural wellbeing
Objective 3.12, Waikato	Development of the built environment (including transport and other infrastructure) and associated
Regional Policy Statement	land use occurs in an integrated, sustainable and planned manner which enables positive
	environmental, social, cultural and economic outcomes including by:
	a) Integrating land use and infrastructure planning;
	b) Integrating land use and water planning;
	c) Recognising and protecting the long term benefits of regionally significant infrastructure;
	d) anticipating and responding to changing land use pressures outside the Waikato region
	which may impact on the built environment within the region.
Policy 6.3, Waikato Regional	Management of the built environment ensures:
Policy Statement	a) the nature, timing and sequencing of new development is co-ordinated with the
	development, funding, implementation and operation of transport and other infrastructure,
	b) the efficient and effective functioning of infrastructure, including transport corridors, is
	maintained, and the ability to maintain and upgrade that infrastructure is retained; and
	c) a co-ordinated and integrated approach across regional and district boundaries and
	between agencies;
Policy 6.6, Waikato Regional	Management of the built environment ensures
Policy Statement	particular regard is given to:
	a) that the effectiveness and efficiency of existing and planned regionally significant
	infrastructure is protected;
	b) the benefits that can be gained from the development and use of regionally significant
	infrastructure and energy resources, recognising and providing for the particular benefits of renewable electricity generation, electricity transmission, and municipal water supply;
Objective 1.2.3.3, Waikato	The role of resource use in the Waikato and its contribution to enabling people and communities to
Regional Plan	provide for their social, economic and cultural well being and for their health and safety
	recognised, while ensuring that the purpose of the Act is met.
Objective 3.1.2(p), Waikato	The management of water bodies in a way which ensures that the positive effects of water

Objective / Policy Number	Key Provisions
Regional Plan	resource use, activities and associated existing lawfully established infrastructure are recognised, whilst avoiding, remedying or mitigating adverse effects on the environment
Objective 3.1.2(a), Waikato Regional Plan	The management of water bodies in a way which ensures that people are able to take and use water for their social, economic and cultural wellbeing
Objective 3.1.2(p), Waikato Regional Plan	The management of water bodies in a way that ensures that the positive effects of water resource use activities and associated existing lawfully established infrastructure are recognised, whilst avoiding, remedying or mitigating adverse effects on the environment.
Policy 3.2.3.1(e), Waikato Regional Plan	Manage water bodies to enable a range of water use activities, whilst ensuring that a net improvement in water quality across the Region is achieved over time through recognising the positive benefits to people and communities arising from use or development of water resources and by taking account of existing uses of water and the associated lawfully established infrastructure
Policy 10, Proposed Waikato Regional Plan Change 1	When deciding resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens to water or onto or into land, provide for the continued operation of regionally significant infrastructure

2. Effects on Water Quality

Objective / Policy Number	Key Provisions
Objective A, Vision and Strategy	The restoration and protection of the health and wellbeing of the Waikato River
for the Waikato River	
Objective F, Vision and Strategy	The adoption of a precautionary approach towards decisions that may result in significant adverse
for the Waikato River	effects on the Waikato River, and in particular those effects that threaten serious or irreversible
	damage to the Waikato River
Objective G, Vision and	The recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of
Strategy for the Waikato River	activities undertaken both on the Waikato River and within its catchments on the health and wellbeing of the Waikato River
Objective K, Vision and Strategy	The restoration of water quality within the Waikato River so that it is safe for people to swim in and
for the Waikato River	take food from over its entire length
Objective H, Vision and	The recognition that the Waikato River is degraded and should not be required to absorb further
Strategy for the Waikato River	degradation as a result of human activities
Objective A2, National Policy	The overall quality of fresh water within a region is maintained or improved
Statement for Freshwater	
Management	
Objective 3.1.2(b), Waikato	The management of water bodies in a way which ensures net improvement of water quality across
Regional Plan	the Region
Policy A4(1), National Policy	When considering any application for a discharge the consent authority must have regard to the
Statement for Freshwater	extent to which the discharge would avoid contamination that will have an adverse effect on the
Management	life-supporting capacity of fresh water and the extent to which it is feasible and dependable that
	any more than minor adverse effect on fresh water resulting from the discharge would be avoided
Policy 8.3, Waikato Regional	Manage the effects of activities to
Policy Statement	maintain or enhance the identified values of fresh water bodies
Policy 3.2.3.1, Waikato Regional	Manage all water bodies to enable a range of water use activities, whilst ensuring that a net
Plan	improvement in water quality across the Region is achieved over time through:
	a) Maintaining overall water quality in areas where it is high, and in other water bodies,
	avoiding, remedying or mitigating cumulative degradation of water quality from the effects
	of resource use activities.
	b) Enhancing the quality of degraded waterbodies.
	c) Providing for the mitigation and remediation of adverse effects in accordance with Section

Objective / Policy Number	Key Provisions
	1.3.3 of the Waikato Regional Policy Statement
Objective 19.4.2, Waikato- Tainui Environmental Plan	Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).
Objective 1 Proposed Waikato Regional Plan Change 1	By 2096 discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water result in achievement of the restoration and protection of the 80 year water quality attribute targets in Table 3.11-1.
Policy 5, Proposed Waikato Regional Plan Change 1	Recognise that achieving the water quality attribute ^targets^ set out in Table 11-1 will need to be staged over 80 years, to minimise social disruption and allow for innovation and new practices to develop, while making a start on reducing discharges of nitrogen, phosphorus, sediment and microbial pathogens, and preparing for further reductions that will be required in subsequent regional plans.
Policy 11, Proposed Waikato Regional Plan Change 1	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 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 adverse effects, 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 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^ located upstream, and d) Offset measure remains in place for the duration of the consent and is secured by consent condition.
Policy 12, Proposed Waikato Regional Plan Change 1	Consider 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 achievement of the short term targets^ in Objective 3 or the progression towards the 80-year targets^ in Objective 1, taking into account: a) The relative proportion of nitrogen, phosphorus, sediment or microbial pathogens that the particular point source discharge contributes to the catchment load; and

Objective / Policy Number	Key Provisions
	 b) Past technology upgrades undertaken to model, monitor and reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and c) The ability to stage future mitigation actions to allow investment costs to be spread over
	time and meet the water quality 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*.

3. Cultural Effects

Objective / Policy Number	Key Provisions	
Objective B, Vision and Strategy	The restoration and protection of the	
for the Waikato River	relationship of Waikato-Tainui with the Waikato River, including their economic, social, cultural and	
	spiritual relationships	
Objective C, Vision and Strategy	The restoration and protection of the relationships of Waikato River Iwi according to their tikanga	
for the Waikato River	and kawa with the Waikato River, including their economic, social, cultural and spiritual	
	relationships.	
Objective D, Vision and	The restoration and protection of the relationship of the Waikato region's communities with the	
Strategy for the Waikato River	Waikato River including their economic, social, cultural and spiritual relationships.	
Objective M, Vision and	The application of both mātauranga Maaori and the latest available scientific methods.	
Strategy for the Waikato River		
Objective 3.14, Waikato	Maintain or enhance the mauri and	
Regional Policy Statement	identified values of fresh water bodies	
	including by:	
	a) maintaining or enhancing the overall quality of freshwater within the region;	
	b) safeguarding ecosystem processes and indigenous species habitats;	
	c) safeguarding the outstanding values of identified outstanding freshwater bodies and the significant values of wetlands;	
	d) safeguarding and improving the life supporting capacity of freshwater bodies where they	
	have been degraded as a result of human activities, with demonstrable progress made by 2013;	
	e) establishing objectives, limits and targets, for freshwater bodies that will determine how they be managed;	
	f) enabling people to provide for their social, economic and cultural wellbeing and for their health and safety;	
	g) recognising that there will be variable management responses required for different catchments of the region; and	
	h) recognising the interrelationship between land use, water quality and water quantity.	
Objective 3.9,	The relationship of tangata whenua with	

Objective / Policy Number	Key Provisions	
Waikato Regional Policy	the environment is recognised and provided for, including:	
Statement	a) the use and enjoyment of natural and physical resources in accordance with tikanga Māori,	
	including mātauranga Māori; and	
	b) the role of tāngata whenua as kaitiaki.	
Policy 10.2, Waikato Regional	Recognise and provide for the relationship of tangata whenua and their culture and traditions with	
Policy Statement	their ancestral lands, water, sites, wāhi tapu and other taonga.	
Objective 3.1.2(i), Waikato	The management of water bodies in a way which ensures that significant adverse effects on the	
Regional Plan	relationship tangata whenua as Kaitiaki have with water and their identified taonga such as waahi	
	tapu, and	
	native flora and fauna that have customary and traditional uses in or on the margins of water	
	bodies, are remedied or mitigated	
Objective 3.1.2(j), Waikato	The management of water bodies in a way which ensures the cumulative adverse effects on the	
Regional Plan	relationship tangata whenua as Kaitiaki have with water their identified taonga such as waahi tapu,	
	and native flora and fauna that have customary and traditional uses that are in or on the margins	
	of water bodies are remedied or mitigated	
Objective 3.1.2(i), Waikato	The management of water bodies in a way which ensures that significant adverse effects on the	
Regional Plan	relationship tangata whenua as Kaitiaki have with water and their identified taonga such as waahi	
	tapu, and native flora and fauna that have customary and traditional uses in or on the margins of	
	water bodies, are remedied or mitigated	
Objective 14.3.1, Waikato-	Waikato-Tainui access to and ability to	
Tainui Environmental	undertake customary activities and resource use, including along the margins of waterways, is	
Plan	protected and enhanced.	

4. Social Effects including recreation

Objective / Policy Number	Key Provisions
Objective K, Vision and Strategy	The restoration of water quality within the Waikato River so that it is safe for people to swim in and
for the Waikato River	take food from over its entire length
Objective L, Vision and Strategy	The promotion of improved access to the
for the Waikato River	Waikato River to better enable sporting, recreational, and cultural opportunities
Objective A1, National Policy Statement for Freshwater Management	To safeguard the health of people and communities, at least as affected by secondary contact with fresh water in sustainably managing the use and development of land and of discharges of contaminants
Policy A4(2), National Policy Statement for Freshwater Management	When considering any application for a discharge the consent authority must have regard to a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water; and b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided

5. Ecological Effects

Objective / Policy Number	Key Provisions
Objective I, Vision and Strategy for the Waikato River	The protection and enhancement of significant sites, fisheries, flora and fauna
Policy A4(1), National Policy Statement for Freshwater Management	When considering any application for a discharge the consent authority must have regard to the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water and no any ecosystem associated with freshwater resulting from the discharge would be avoided
Objective A1, National Policy Statement for Freshwater Management	To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water
Objective 3.8, Waikato Regional Policy Statement	The range of ecosystem services associated with natural resources are recognised and maintained or enhanced to enable their ongoing contribution to regional wellbeing
Policy 11.1, Waikato Regional Policy Statement	Promote positive indigenous biodiversity outcomes to maintain the full range of ecosystem types and maintain or enhance their spatial extent as necessary to achieve healthy ecological functioning of ecosystems
Objective 3.19, Waikato Regional Policy Statement	The full range of ecosystem types, their extent and indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.
Policy 11.2, Waikato Regional Policy Statement	Significant indigenous vegetation and the significant habitats of indigenous fauna hall be protected by ensuring the characteristics that contribute to its significance are not adversely affected to the extent that the significance of the vegetation or habitat is reduced
Objective 3.1.2(c), Waikato Regional Plan	The management of water bodies in a way which ensures the avoidance of significant adverse effects on aquatic ecosystems
Policy 3.2.3.4, Waikato Regional Plan	Enable the use of all surface water bodies in the Region, provided that any significant adverse effects on existing aquatic ecosystems are avoided, remedied or mitigated