

**IN THE MATTER** of the Resource Management  
Act 1991

**AND**

**IN THE MATTER** Plan Change 1 – (Waikato and  
Waipa Catchments) to the  
Waikato Regional Plan.

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**PRIMARY STATEMENT OF EVIDENCE OF GILLIAN MARY CROWCROFT  
ON BEHALF OF MERCURY NZ LIMITED (SUBMITTER NUMBER 73182)**

**HEARING BLOCK 2 – PART C**

**3 May 2019**

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## 1. EXECUTIVE SUMMARY

- 1.1 I have been engaged by Mercury NZ Limited (**Mercury**) to provide planning evidence in relation to its submission on Plan Change 1 to the Waikato Regional Plan (**WRP, PC1**). Mercury has interests in the Waikato River catchment as an electricity generator and operator of the Waikato Hydro Scheme (**WHS**). Mercury also operates geothermal power stations in the Waikato Region (Rotokawa, Nga Awa Purua, Ngatamariki and Mokai). These rely on freshwater from the Waikato River for operational and drilling purposes. I consider that the collaborative process used by the Healthy Rivers project partners (to identify values and develop objectives, policies, and methods for improving water quality in the Waikato and Waipa rivers) is an example of good planning practice. I am aware that Mercury supports continued collaboration to implement the policies and methods of PC1.

### Policies

- 1.2 Mercury supports the long-term restoration of the Waikato and Waipa Rivers through reductions in the discharges of nutrients, sediment and pathogens. The Officers recommend significant changes to Policy 1 to include content from Policy 6 and parts of Policy 2. In my opinion, the changes improve the policy and make the relationship between freshwater objectives, policies and rules clearer and more logical.
- 1.3 I support the Officers recommendation to include new Clauses (b3) and (b4) in Policy 1 and the policy directive to generally grant (or not grant) resource consents based on the demonstration (or not) of *“clear and enduring reductions in diffuse discharges”* of the four contaminants. This requirement goes to the heart of what PC1 seeks to achieve<sup>1</sup> and, in my opinion, is appropriate. For this reason, I support the Officers’ Policy 1 recommendations.
- 1.4 Mercury supported Policy 2 subject to suggested amendments including that the term ‘Certified Industry Scheme’ be amended to ‘Certified Sector Scheme’. I note that this suggestion has been accepted in the track change version. In my opinion this is a sensible change and will avoid any confusion that may arise from the use of the word “industry’ elsewhere in the plan. The Officers

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1 Specifically the outcome sought by Objective 1 of PC1.

recommend other changes to Policy 2 in the track change version that are also appropriate.

- 1.5 The Officers recommend significant changes to Policy 5 although the intent remains the same. In my opinion, the focus still needs to be on those farmers, businesses and communities whose activities affect water quality through the discharge of nitrogen, phosphorus, sediment and microbial pathogens. I consider that an amendment to recommended Clause (a) should be made and propose wording in my evidence (paragraph 3.5)
- 1.6 The Officers recommend that Policy 6 is deleted, and that Policy 1 be amended to include the Policy intent. For reasons expressed above in relation to Policy 1, I support the Officers' recommendation to delete Policy 6 and incorporate the relevant provisions into Policy 1.
- 1.7 Mercury supported Policy 8 with amendments to make catchment and FMU prioritisation clearer and less ambiguous. Mercury sought to make it clear that actions in Priority 1 sub-catchments should not be at the expense of inaction in Priority 2 or 3 sub-catchments.
- 1.8 The track change version of Policy 8 also recommends inclusion of sector groups in prioritised implementation. I commend the desire to take action in priority sub-catchments and FMUs and in relation to specified priority sector groups and I support the Policy intent in principle. In my opinion, it is not completely clear from the proposed wording that the prioritisation of the specified sectors would apply for the whole of the PC1 area. I consider that an amendment should be made and propose wording in my evidence (paragraph 3.9)
- 1.9 The Officers have recommended changes to Policy 11 that introduce the concept of "reasonable" avoidance and "reasonable" mitigation. I consider that these terms are appropriate in the context of the application of the Best Practicable Option, which is a term that is already defined in the RMA and the WRP.
- 1.10 I consider the recommended amendment to Clause (d) of Policy 11 to be particularly important as it is not always practical or legal for offset

arrangements to be secured by consent conditions (due to the nature of offsetting which often relates to third party owned land). The addition of a reference to “other legally binding mechanisms” is, therefore, appropriate in my opinion.

- 1.11 The Officers recommend changes to Policy 13 Clause (a) that remove the references to Policies 11 and 12 and replace them with a requirement for consistency with the water quality attribute states in Table 3.11-1. I consider that Policies 11 and 12, along with Policy 10, are directly relevant Policy 13 and should be expressly relevant considerations. I provide my reasons for this in paragraph 3.14 of my evidence.

#### Rules

- 1.12 Mercury made a further submission opposing submissions on Variation 1 to PC1 that had sought non-complying activity rule 3.11.5.7 be deleted, changed or made a discretionary activity. The Officers have recommended retaining this non-complying activity rule in a simplified form. I support the retention of this non-complying activity rule and its proposed wording as I believe it is both appropriate and necessary to achieve Objective 1 which is at the core of PC1.

#### Definitions

- 1.13 I support the Officers’ recommendations to amend ‘Certified Industry Scheme’ to ‘Certified Sector Scheme’ (along with some other minor changes).
- 1.14 I consider that the Officers recommended definition for “regionally significant industry” is, for the most part, appropriate. I note that the term “industry” is defined in the Waikato Regional Plan and consider that the Officers proposed definition of “regionally significant industry” should be amended. I propose wording in my evidence (paragraph 3.26)
- 1.15 Mercury was supportive of using the definition for regionally significant infrastructure from the Waikato Regional Policy Statement (**RPS**). The Officers have recommended a new definition based on the RPS version. A minor amendment is needed to reflect that the definition references are to the RPS.

## 2. INTRODUCTION

### Qualifications and experience

- 2.1 My full name is Gillian Mary Crowcroft. I hold the position of Environmental Lead for Harrison Grierson Consultants Limited, a multi-disciplinary consulting company with eight offices throughout New Zealand.
- 2.2 I have a Master of Science Degree (with Honours) majoring in Earth Science from the University of Waikato. I completed my Masters Thesis on the Groundwater resources of the Mangaone and Mangaonua catchments in the Waikato Catchment in 1992. Since then I have had some 26 years' resource management experience. I have worked as a scientist, policy analyst, planner, and water strategy and policy manager in both the public and private sectors. I am a full member of the New Zealand Hydrological Society.
- 2.3 I undertake resource management work for a range of local authority, utility and developer clients throughout New Zealand. My advice and project work typically relate to strategic planning, project management, policy analysis or resource consent matters. During my career, I have been involved in several plan development and resource consent processes relating to regional issues, particularly water resource management.
- 2.4 While at Auckland Regional Council I was involved in the development of policy and plan provisions in the Auckland Regional Plan – Air, Land and Water, particularly with respect to water resource management and drilling. In 2010, I led the project team to making the plan operative in part.
- 2.5 At Auckland Council I project lead “Wai ora Wai Māori”. The project was initiated in 2011 to evaluate options to give effect to the National Policy Statement for Freshwater Management 2011 in the Auckland Region.

## **Expert witness Code of Conduct**

2.6 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. While this Code of Conduct has been developed by the Environment Court, its principles are applicable for expert witnesses at any kind of hearing. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise.

## **This evidence**

2.7 I have been engaged by Mercury NZ Limited (**Mercury**) to provide planning evidence in relation to its submission on Plan Change 1 to the Waikato Regional Plan (**PC1, WRP**).

2.8 I note that section 2 of Mercury's submission provides an outline of its background and interests in the Waikato Region. A description of the company and its interests in the region is provided in my previous evidence.

2.9 I have reviewed the Council Officers' (**Officers**) Section 42A report and the Officers' recommended track changes version of the PC1 provisions relevant to Hearing Block 2 (**track change version**). In my evidence, I use the structure of PC1 to comment on Mercury's submission points and whether they have, or have not, been addressed satisfactorily from my perspective.

## **3. PC1 Policies**

### Policy 1

3.1 Mercury's submission point (PC1-9516) supported Policy 1 and sought that it be retained in the same or similar form. This is because Mercury supports the long-term restoration of the Waikato and Waipa Rivers through reductions in the discharges of nutrients, sediment and pathogens, and through the progressive exclusion of stock from water bodies. The Officers recommend significant changes to Policy 1 to include content from Policy 6 (proposed to be deleted) and from parts of Policy 2. This is a key policy to assist in achieving a reduction in the diffuse sources of contaminant discharges to the rivers. In

my opinion, the changes improve the policy and make the relationship between freshwater objectives, policies and rules clearer and more logical.

- 3.2 New Clauses (b3) and (b4) (as recommended by the Officers) are derived from Policy 6 and, in the context of land use change and intensification, I support the policy directive to generally grant (or not grant) resource consents based on the demonstration (or not) of “*clear and enduring reductions in diffuse discharges*” of the four contaminants. This requirement goes to the heart of what PC1 seeks to achieve<sup>2</sup> and, in my opinion, is appropriate. For this reason, I support the Officers’ Policy 1 recommendations.

#### Policy 2

- 3.3 Mercury’s submission point (PC1-9517) supported Policy 2 subject to suggested amendments, the most significant being the request that the term ‘Certified Industry Scheme’ be amended to ‘Certified Sector Scheme’ (with corresponding amendments elsewhere in PC1, including in the Definitions section, as discussed below in paragraph 3.21). I note that this suggestion has been accepted in the track change version. In my opinion, this is a sensible change as the certified schemes relate to sectors (as opposed to being industry based) and this avoids any potential confusion with the use of the word “industry” elsewhere in the plan and as the term is commonly understood. In my opinion, the other recommended changes to Policy 2 in the track change version are also appropriate.

#### Policy 5

- 3.4 Mercury’s submission point (PC1-9537) supported Policy 5 (specifically the proposed staged approach to achieving the water quality attribute states in Table 3.11-1) and sought that it be retained in the same or similar form. The Officers recommend significant changes to Policy 5 although the intent remains the same. I consider that an amendment to recommended Clause (a) should be made. At present, this clause as recommended reads (without the track changes shown as I wish to use underline text shortly to suggest an amendment):

*“To recognise that:*

- a. All farmers, businesses and communities will need to contribute to achieving the water quality attribute states in Table 3.11-1”*

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2 Specifically the outcome sought by Objective 1 of PC1.

- 3.5 In my opinion, the focus still needs to be on those farmers, businesses and communities whose activities affect water quality through the discharge of nitrogen, phosphorus, sediment and microbial pathogens, and so I would recommend the following amendment:

*“To recognise that:*

- a. All farmers, businesses and communities whose activities involve discharges of nitrogen, phosphorus, sediment and microbial pathogens will need to contribute to achieving the water quality attribute states in Table 3.11-1”*

#### Policy 6

- 3.6 Mercury’s submission point (PC1-9538) supported Policy 6 and sought that it be retained in the same or similar form. The Officers recommend that Policy 6 is deleted and that Policy 1 be amended to include the Policy intent. For reasons expressed above in relation to Policy 1, I support the Officers’ recommendation to delete Policy 6 and incorporate the relevant provisions into Policy 1.

#### Policy 8

- 3.7 Mercury’s submission point (PC1-9541) supported Policy 8 with amendments to make catchment and FMU prioritisation clearer and less ambiguous. In particular, Mercury sought to make it clear that actions in Priority 1 sub-catchments should not be at the expense of inaction in Priority 2 or 3 sub-catchments. There is a case for catchment-wide action and, within that, prioritisation of certain sub-catchments and sectors makes sense. The Officers have recommended amendments that achieve the clarification sought and I am therefore supportive of these changes.
- 3.8 The track change version of Policy 8 also recommends inclusion of sector groups (specifically, commercial vegetable production and dairy farming) in prioritised implementation. I commend the desire to take action in priority sub-catchments and FMUs and in relation to specified priority sector groups and I support the Policy intent in principle. The text below sets out the Officers’ recommended wording (without the track changes shown as I wish to use underline text shortly to suggest an amendment).



*Prioritise the management of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens in accordance with the prioritisation of areas set out in Table 3.11-2, commercial vegetable production activities [OPTION and dairy farming] and the catchments of lakes.*

- 3.9 In my opinion, it is not completely clear from the above wording that the prioritisation of the specified sectors would apply for the whole of the PC1 area. I suggest the following amendment as a means of making this clearer.

*Prioritise the management of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens within the catchments of lakes, and from commercial vegetable production and dairy farming activities in all catchments, and otherwise in accordance with the prioritisation of areas set out in Table 3.11-2, ~~commercial vegetable production activities [OPTION and dairy farming] and the catchments of lakes.~~*

#### Policy 11

- 3.10 Mercury's submission point (PC1-9574) supported Policy 11 and its provision for a Best Practicable Option approach. The Officers have recommended changes to Policy 11 that introduce the concept of "reasonable" avoidance and "reasonable" mitigation. I consider that these terms are appropriate in the context of the application of the Best Practicable Option, which is a term that is already defined in the RMA and the WRP as follows:

***Best practicable option:*** *In relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:*

- 1. The nature of the discharge or the emission and the sensitivity of the receiving environment to adverse effects; and*
- 2. The financial implications, and the effects on the environment, of that option when compared with other options; and*
- 3. The current state of technical knowledge and the likelihood that the option can be successfully applied.*

3.11 While the above definition does not use the word “reasonable”, in my opinion the concept is inherent within it. I also consider that mitigation options need to be broad to provide for the variability of landform, hydrology and activity across the Waikato and Waipa Catchments. As such, I support the Officers’ recommended changes to Policy 11.

3.12 I consider the recommended amendment to Clause (d) to be particularly important as it is not always practical or legal for offset arrangements to be secured by consent conditions (due to the nature of offsetting which often relates to third party owned land). The addition of a reference to “other legally binding mechanisms” is, therefore, appropriate in my opinion.

Policy 13

3.13 Mercury’s submission point (PC1-9577) supported Policy 13 but sought that it be amended to include a reference to “point source discharges” and this suggestion has been accepted by the Officers in the track change version. The Officers also recommend changes to Clause (a) that remove the references to Policies 11 and 12 and replace them with a requirement (if longer consent durations are to be considered) for consistency with the water quality attribute states in Table 3.11-1.

3.14 I understand the reason for recommending the latter, but I still think that Policies 11 and 12 should be expressly relevant considerations for the following reasons:

(a) Policy 11 prescribes approaches that are specific to mitigating the effects of a point source discharge of nitrogen, phosphorous, sediment or microbial pathogens to water or land within FMUs in the Waikato and Waipā catchments; and

(b) Policy 12 identifies additional considerations for point source discharges including the relative contribution of contaminants that the discharge contributes to the catchment load.

3.15 I think a point source discharge activity’s ability to demonstrate consistency with Policy 11 and 12, and therefore show appropriate management of

adverse effects, is entirely relevant to considerations of consent duration. Consequently, I consider both Policy 11 and 12 should be included specifically in Policy 13.

- 3.16 From a planning perspective it would also be logical to include reference to Policy 10 in Policy 13. Policy 10 provides for point source discharges of regional significance which, in my opinion, should also be a consideration in determining consent duration. For this reason – and using the Officers’ recommendation (accepting the track changes) – I would recommend the following additional amendment (as underlined):

*When determining an appropriate duration for any point source discharge consent granted consider the following matters:*

- a. *The appropriateness of a longer consent duration, having regard to Policies 10, 11 and 12, where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1.*

[then Clauses (b) and (c)]

- 3.17 In the above suggestion, it should be noted that the underlined text is not new text but rather the reinstatement of text similar to that in the notified version.

Non-complying activity rule 3.11.5.7

- 3.18 Mercury made a further submissions opposing submissions on Variation 1 to PC1 by Theland Tahī Farm Group Limited (V1PC1-569) and Waeranga Partnership (V1PC1-626) that had sought non-complying activity rule 3.11.5.7 be deleted or changed such that land use change and intensification (above a specified threshold) would be a restricted discretionary activity or a discretionary activity.
- 3.19 Mercury also made a further submission opposing Federated Farmers of NZ (V1PC1-705) seeking the same rule be changed to a discretionary activity.

- 3.20 Mercury considers that the non-complying activity status is appropriate for the specified types of land use intensification on a scale larger than 4.1 hectares per property (as is now proposed in Rules 3.11.5.2A, 3.11.5.3 and 3.11.5.4). The Officers have recommended retaining this non-complying activity rule in simplified form. I support the retention of this non-complying activity rule and its proposed wording as I believe it is both appropriate and necessary to achieve Objective 1 which is at the core of PC1.

Definition of “Certified Sector Scheme”

- 3.21 Mercury’s submission point (PC1-9684) sought that the definition of ‘Certified Industry Scheme’ be amended to ‘Certified Sector Scheme’ for the reasons discussed above. I note that the Officers support this submission point and recommend this change (along with some other minor changes). I support the Officers’ recommendations.

Definition of “Regionally Significant Industry”

- 3.22 Mercury’s submission point (PC1-9687) sought that there be a new definition of the term “regionally significant industry” because the term is used in Policy 10 (a policy to which no changes have been recommended). Mercury suggested a definition based on that in the Waikato Regional Policy Statement (**RPS**) but with some amendments. Other submitters have also requested addition of a definition for this term, but have suggested alternative wording.

- 3.23 The Officers have recommended the following definition:

***Regionally significant industry:*** means an economic activity based on the use of natural and physical resources in the region, which is demonstrated to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits.

- 3.24 I consider that this definition is, for the most part, appropriate and that - in contrast to the Mercury submission - it does not need to include a list of activities that are expressly included in the definition. However, I do

consider that as written, it could be interpreted to cover all primary production activities because collectively as an economic activity the sector is significant at a regional and national scale. This is not consistent with the intent of the definition nor the intent of Policy 10 in which the term is used. I consider that the term is intended to apply to significant industries (locations) as opposed to sectors.

3.25 I note that the term “industry” is defined in the Waikato Regional Plan as:

*For the purposes of Chapters 3.3 and 3.4, means the extraction and processing of raw materials; the manufacture of goods in factories and processing plants; bulk storage; warehousing; service and repair activities.*

3.26 Noting this, I consider that the definition of “regionally significant industry” should be amended to read:

***Regionally significant industry:*** *means an ~~economic activity~~ industry based on the use and processing of natural and physical resources in the region, which is demonstrated to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits.*

3.27 I consider that a reference to “industry” rather than “economic activity” would be helpful in this case to ensure that the definition applies to significant industries as opposed to sectors generally.

#### Definition of “Regionally Significant Infrastructure”

3.28 Mercury made a further submission point in relation to submissions by Hamilton City Council (PC1-10208), Watercare Services Ltd (PC1-8340) and South Waikato District Council (PC1-4056 and PC1-9724) that sought a new definition of the term “regionally significant infrastructure”. Mercury was supportive of using the definition from the RPS. The Officers have recommended a new definition accordingly (based on the RPS version) and the only minor observation I would make is that Clause (g) will need to be amended to read:

*g. significant transport corridors as defined in Map 6.1 and 6.1A in the Waikato Regional Policy Statement;*

- 3.29 Without the above amendment, the references to Map 6.1 and 6.1A would be meaningless as they do not exist in the Waikato Regional Plan.

Gillian Crowcroft  
Environmental Lead, Harrison Grierson  
3 May 2019.

## APPENDIX 1: CHANGES TO PC1 PROVISIONS SOUGHT

My recommended deletions and insertions are shown as ~~strikethrough~~ and underline.

### Policy 5

*“To recognise that:*

- b. All farmers, businesses and communities whose activities involve discharges of nitrogen, phosphorus, sediment and microbial pathogens will need to contribute to achieving the water quality attribute states in Table 3.11-1”*

### Policy 8

*Prioritise the management of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens within the catchments of lakes, and from commercial vegetable production and dairy farming activities in all catchments, and otherwise in accordance with the prioritisation of areas set out in Table 3.11-2, ~~commercial vegetable production activities [OPTION and dairy farming] and the catchments of lakes.~~*

### Policy 13

*When determining an appropriate duration for any point source discharge consent granted consider the following matters:*

- a. The appropriateness of a longer consent duration, having regard to Policies 10, 11 and 12, where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1.*

*[then Clauses (b) and (c)]*

### Definitions

***Regionally significant industry:*** ~~means an economic activity~~ industry based on the use and processing of natural and physical resources in the region, which is demonstrated to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits.

***Regionally significant infrastructure:*** includes

.....

*g. significant transport corridors as defined in Map 6.1 and 6.1A in the Waikato Regional Policy Statement; .....*