

Evidence in respect of Genesis Energy Limited Submission #74052

BEFORE THE INDEPENDENT HEARINGS PANEL FOR PROPOSED WAIKATO
REGIONAL PLAN CHANGE 1

IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF Proposed Plan Change 1 to the Waikato Regional Plan, Parts
C1-C6: Policies, Rules and Schedules (most)

PRIMARY STATEMENT OF EVIDENCE BY RICHARD MATTHEWS

3 MAY 2019

FOR GENESIS ENERGY LIMITED SUBMITTER #74052

Evidence Summary

1. Genesis owns and operates nationally significant electricity generation facilities within the Waikato River Catchment and therefore has a significant interest in the management of water quality in the Waikato River.
2. I support the intent of Proposed Plan Change 1 (“**PC1**”) to the Waikato Regional Plan for the Waikato and Waipā Rivers and the staged approach proposed to restore and protect the Waikato and Waipā Rivers, recognising that the changes necessary to restore and protect the Waikato and Waipā Rivers will need to be intergenerational to allow for improvements in technology to enable the long-term targets in PC1 to be met.
3. I support the continuation of PC1 managing the four contaminants as notified, assessed in the section 32 evaluation report, and agreed to by the Collaborative Stakeholder Group: nitrogen, phosphorus, sediment and microbial pathogens. In my opinion, expanding the range of attributes addressed under PC1 beyond nitrogen, phosphorus, sediment and microbial pathogens will not contribute significantly to achieving the changes needed to restore and protect the Waikato and Waipā Rivers so that they are suitable for swimming and food gathering. The focus needs to remain with these four contaminants in order to achieve the purpose of PC1.
4. I consider that point source discharges are already appropriately controlled through resource consent processes and the existing policy framework of the Waikato Regional Plan (and other statutory documents including the Vision and Strategy for the Waikato River) which create an expectation of ongoing improvements in discharge quality in order to meet higher water quality standards. I also consider that the policy framework in PC1 needs to be consistent across all activities affecting water quality in requiring all activities (whether diffuse or point source) to address and manage the impacts of those activities. From a point source perspective, the provisions need to build on what the Waikato Regional Plan already provides for in respect of point source discharges.
5. Given the existing level of control in respect of point source discharges (in that the existing provisions of the Waikato Regional Plan generally require resource consents for point source discharges), the approach to managing

diffuse and point source discharges within the PC1 framework at the policy level should be different. In my opinion, there is a very clear need to reduce diffuse sources of nitrogen, phosphorus, sediment and microbial pathogens that will require specific policy direction relating to management of diffuse sources.

6. I therefore support the policy framework in PC1 that approaches point source and diffuse discharges differently.
7. I generally agree with the changes proposed in the s42A report for Policy 1 and in particular, the proposed changes to require all activities to operate according to best environmental practice or better (whether that is Good Farming Practice for land use activities giving rise to nutrient discharges or using best practicable options for point source discharges) and to include specific controls in resource consents that ensure contaminant losses will be reduced.
8. I generally agree with the rewording proposed in the s42A report for Policy 5, provided Table 3.11-1 remains as notified. The s42A report changes proposed for Policy 5 acknowledge that all activities need to contribute to achieving the water quality attribute states, that changes need to start immediately and that the rate of change will need to be staged over time.
9. I support the retention of Policy 10 as notified, which requires decision makers to recognise and provide for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens from regionally significant industries and regionally significant infrastructure. Both the Huntly Power Station and Tongariro Power Station are within the ambit of the Regional Policy Statement definition of “regionally significant infrastructure”.
10. I do not agree with the wording proposed in the s42A report for Policy 11 in that it establishes an effect hierarchy requiring first and foremost, avoidance of adverse effects before any other consideration. Such a requirement is not proposed in respect of diffuse source discharges, which are responsible for the majority (and over recent years, an increasing proportion) of the nitrogen, phosphorus, sediment and microbial pathogen load in the Waikato and Waipā Rivers.

11. I consider that Policy 11 should be split into two policies; the first dealing with implementing BPO measures and the second to deal with environmental compensation (offset) matters. Rather than referring to “offsets”, I consider that environmental compensation is a more appropriate term to use in relation to PC1 as this term does not have the same biodiversity implications that offsetting does. I have proposed wording for the two policies I suggest in Appendix 1.
12. I do not support the s42A report recommendation to delete clause (d) from Policy 12. This clause provides appropriate recognition that while it may be engineeringly possible to upgrade a treatment plant, there comes a point where greater environmental improvements could be achieved by other means.
13. I consider that Policy 13 should retain reference to a consent duration exceeding 25 years, as this removes any uncertainty as to what a “longer consent duration” actually means. I agree with other changes recommended for Policy 13 in the s42A report (provided that Table 3.11-1 remains as notified).
14. PC1 is primarily focussed on managing discharges of contaminants from diffuse sources (and in particular, nitrogen, phosphorus, sediment and microbial pathogens). In my opinion, the water quality attributes or states referred to in Table 3.11-1 should be supported by appropriate policies regarding management of the activities giving rise to potential discharges of nitrogen, phosphorus, sediment and microbial pathogens. No changes to the policies in PC1 have been proposed to address contaminants other than nitrogen, phosphorus, sediment and microbial pathogens.
15. I have summarised the changes that I propose in **Appendix 1**.

Introduction

16. My name is Richard John Matthews. I hold the qualifications of Master of Science (Hons) degree specialising in Chemistry and have been working on resource consent applications (and their former descriptions under legislation prior to the commencement of the Resource Management Act 1991) since 1979 and advising on Regional and District Plan provisions since 1991.
17. I am a partner with Mitchell Daysh Limited, a specialist environmental consulting practice with offices in Auckland, Hamilton, Tauranga, Taupō, Napier, Wellington and Dunedin. Mitchell Daysh Limited was formed on 1 October 2016, as a result of merger between Mitchell Partnerships Limited and Environmental Management Services Limited.
18. I have forty years' experience as a resource management adviser, initially in the local government sector. My first role in the local government sector was as a water quality scientist assessing water quality in the Waikato River and its catchment, subsequently becoming Resource Consents Manager for the Waikato Regional Council.
19. Since 1999 I have been in private practice with the environmental consulting practice, Mitchell Partnerships Limited (now Mitchell Daysh Limited). I have been involved in many resource management projects within New Zealand, including several resource consent application processes and Regional and District Plan reviews. A summary of specific projects I have had a lead role in is included as **Appendix 2**.

Code of Conduct

20. While not directly applicable to this hearing, I confirm that I have read the "Code of Conduct for Expert Witnesses" contained in the Environment Court Consolidated Practice Note 2014. I agree to comply with this Code of Conduct. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of Evidence

21. My evidence discusses the Genesis Energy Limited ("**Genesis**") Submissions (submitter ID 74052) and Further Submissions on Proposed Plan Change 1 to

the Waikato Regional Plan for the Waikato and Waipā Rivers (“**PC1**”) and the Council Section 42A report and recommendations (“**s42A report**”) on the submissions made on PC1 with respect to the matters addressed in Parts C1-C6: Policies, Rules and Schedules (most).

22. Specifically, most of my evidence focuses on the point source discharge policies (Policies 10 – 13) which are of particular relevance to the activities undertaken in respect of the operation of the nationally significant Huntly Power Station (“**HPS**”), located in the Lower Waikato River Freshwater Management Unit and the Riverine Lakes Freshwater Management Unit.

Genesis Energy Limited – Background and Submissions

23. Section 2 of the Genesis submission sets out the background to Genesis’ interests in the Waikato River catchment.
24. Genesis’ interests in the Waikato Region include owning and operating:
 - The Tongariro Power Scheme (“**TPS**”) which diverts water around the central volcanic plateau through three power stations. All water diverted by the TPS is discharged into Lake Taupo (and therefore the Waikato River); and
 - The HPS, which is a thermal generation plant located within the Lower Waikato River Freshwater Management Unit. The generation units on site currently utilise coal and/or gas.
25. Of particular relevance to PC1 is that the operation of the HPS requires discharges to the Waikato River as a result of onsite processes, including those controlled by PC1 (ammonia, phosphorus and sediment).
26. The HPS is operated under a comprehensive suite of resource consents that were granted in 2012 and expire in 2037. While Genesis has signalled their intention to phase out the use of coal completely by 2030, the future of the HPS includes the opportunity to utilise other fuels and technologies for electricity generation.
27. The Submissions made by Genesis Energy Limited fall into two broad categories:

- (a) Support for the intent of PC1 in giving effect to Te Ture Whaimana o Te Awa o Waikato, the Vision and Strategy for the Waikato River (“**Vision and Strategy**”) and National Policy Statement for Freshwater Management 2014 as updated in 2017 (“**NPSFM**”); and
- (b) Ensuring that the operation of existing regionally significant infrastructure (as defined in the Waikato Regional Policy Statement) is recognised and provided for by way of the objectives and policies of PC1 given the existing objectives, policies and rules in the Waikato Regional Plan continue to apply to point source discharges (and resource consent is required for point source discharges).

28. I have read the s42A report. I do not propose to repeat the matters addressed in that report other than to highlight particular points and focus on the aspects where I consider further amendments need to be made to the provisions of PC1.

Overall Direction

- 29. A key tenant of the Genesis submission is support for the Vision and Strategy for the Waikato River and the overarching intent of PC1 in terms of giving effect to the Vision and Strategy and the NPSFM (submission point PC1-8730).
- 30. PC1 has a particular focus of restoring the water quality of the Waikato and Waipā Rivers so that it is “*safe for people to swim in and take food from over its entire length*” (Chapter 3.11 Background and Explanation). The Chapter 3.11 explanation states that one objective (Objective K) from the Vision and Strategy has been given particular focus for the proposed chapter. The objectives, policies and rules in Chapter 3.11 of the Waikato Regional Plan (which is what PC1 creates) must therefore address that focus.
- 31. The Background and Explanation section of PC1 states that “*current water quality monitoring results show that while there is variability across the Waikato and Waipā River catchments, there are adverse effects on water bodies associated with discharges of nitrogen, phosphorus, sediment and microbial pathogens*” and that from a quality perspective, over allocation has occurred.

32. Nitrogen, phosphorus, sediment and microbial pathogens are identified in *Environment Aotearoa 2019*¹ as important measures of the state of New Zealand waterways and that “*there is clear evidence that waterways in our farming areas have markedly higher pollution by nutrients (nitrogen and phosphorus), microbial pathogens, and sediment than waterways in native catchments*” (page 47). The report also observes that these contaminants are “likely” or “very likely” worsening in many locations in the Waikato Catchment (see pages 47 – 62). Modelled nitrate-nitrogen leached from livestock in 2017 in the Waikato Region are amongst the highest for New Zealand (Figure 13, Environment Aotearoa).
33. Similarly, the Parliamentary Commissioner for the Environment commentary² on the state of New Zealand’s environment reported in *Environment Aotearoa 2015* highlights the role of sedimentation, nutrient pollution (nitrogen and phosphorus) and microbial pathogens in degrading water quality and damaging fresh water ecosystems.
34. In my opinion, targeting reductions in nitrogen, phosphorus, sediment and microbial pathogens are at the heart of restoring water quality in the Waikato and Waipā Rivers so that they are safe for people to swim in and take food from. It is appropriate that PC1 focuses on these contaminants as a priority. The existing sections and provisions of the Waikato Regional Plan include controls enabling management of other attributes and / or contaminants in respect of the Waikato and Waipā Rivers.
35. Genesis supports the approach to PC1 in specifically managing nitrogen, phosphorus, sediment and microbial pathogens to provide for the long-term restoration of water quality in the Waikato and Waipā Rivers using a staged approach (PC1-8738). I agree with that approach.
36. To achieve the restoration of water quality in the Waikato and Waipā Rivers over the long term with respect to point source discharges, PC1 includes specific policies regarding the consideration of resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial

¹ Ministry for the Environment & Stats NZ (2019). New Zealand’s Environmental Reporting Series: Environment Aotearoa 2019.

² The state of New Zealand’s environment: Commentary by the Parliamentary Commissioner for the Environment on Environment Aotearoa 2015; June 2016.

pathogens. These new policies, and the existing provisions of the Waikato Regional Plan both equally apply to point source discharges (for the PC1 contaminants). This is consistent with the focus on Objective K from the Vision and Strategy.

37. I support the intent of PC1, the staged approach proposed to restore and protect the Waikato and Waipā Rivers, and the provision of specific policy guidance as to how resource consents applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens are to be considered in the context of the achievement of the Vision and Strategy (and PC1).

Statutory Context – Waikato Regional Policy Statement

38. As well as giving effect to the Vision and Strategy and the NPSFM, PC1 is also required to give effect to the provisions of the Waikato Regional Policy Statement (“**RPS**”). As presented in the Block 1 hearings, central to Genesis interests are the objectives and policies in the RPS that recognise the benefits of electricity generation infrastructure and providing for their operation, maintenance, development and upgrading and provision for regionally significant infrastructure.³ The requirements of the RPS are also directly relevant to the point source discharge policies included in PC1, and the RPS also sets the framework for the differing management approaches between diffuse and point source discharges in PC1.
39. Specifically, RPS Objective 3.5 (Energy) sets out requirements for the recognition and provision for the national significance of renewable electricity generation (clause e), recognising the technical and operational constraints of electricity generation activities (clause h) and recognising the contribution of existing electricity generation activities to both the regional and national needs and security of supply (clause i).
40. RPS Objective 3.12 (clause e) requires that the development of the built environment and associated land use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and

³ The definition of Regionally Significant Infrastructure includes (f) *infrastructure for the generation and/or conveyance of electricity that is fed into the national grid or a network (as defined in the Electricity Industry Act 2010).*

economic outcomes by recognising and protecting the value and long-term benefits of regionally significant infrastructure.

41. Policy 6.6 in the RPS requires the management of the built environment to ensure that particular regard is given to:
- Protecting the effectiveness and efficiency of existing and planned regionally significant infrastructure;⁴
 - The benefits that can be gained from the development and use of regionally significant infrastructure and energy resources;⁵ and
 - The locational and technical practicalities associated with renewable electricity generation and the technical and operational requirements of the electricity transmission network.⁶
42. It is in this statutory context that the Genesis submission sought (submission point PC1-8799) and which I support, the recognition and provision for regionally significant infrastructure assets such as the HPS and TPS through the policies of PC1.
43. In terms of point source discharges, the Officers provide an analysis in the s42A report, outlining that the RPS provides differing direction (in the implementation methods) in terms of point source and non-point source / diffuse discharges.
44. I agree with the Officers on page 162 & 163 (paragraph 1013) where they state that:

The approach taken in PC1 to provide separate policy direction for point source discharges and for diffuse discharges is therefore consistent with the RPS. Because of all of the above, Officers do not consider that point source discharges and diffuse discharges can be

⁴ Which includes, for example, the existing HPS and consented future uses of the HPS site.

⁵ Which includes, for example, significant reliance in New Zealand on generation from the HPS, in particular during peak electricity demand and / or low river flows.

⁶ With respect to transmission, this includes, for example, the HPS being central to the main New Zealand electricity load centre (the upper half of the North Island, proximity to fuel resources such as coal and natural gas supply lines, proximity to National Grid transmission services and the availability of water flows to facilitate generation.

managed in the same way, and any attempt to do so would not be a more appropriate approach to achieving PC1's objective.

PC1 Policies

45. The Genesis submission supports the intent of PC1 (PC1-8799, 8801, 8805) in providing specific policy guidance for the consideration of resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens from regionally significant infrastructure and regionally significant industry. I also support this intent, provided that Table 3.11-1 remains as notified. I note that any changes to Table 3.11-1 could have implications for interpretation and implementation of the policies in PC1. In that regard, it is important in my opinion that Table 3.11-1 is driven by the objectives and policies in PC1 rather than subsequent changes to this Table having implications for the objectives and policies.
46. I am also aware that PC1 seeks to establish a more consistent approach to the management of nitrogen, phosphorus, sediment and microbial pathogen discharges, irrespective of whether they are derived from point or diffuse sources. I support that approach and note that diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens have largely been unregulated to date while point source discharges have been subject to more rigorous regulatory scrutiny.
47. For example, the Waikato Regional Council Technical Report 2014/56 "*Sources of nitrogen and phosphorus in the Waikato and Waipā Rivers, 2003–12*" (prepared by Bill Vant for Waikato Regional Council) concludes that in 2012, point sources contributed approximately 7% of the nitrogen and 18% of the phosphorus that was carried by the rivers and that over the period 2003 – 12 the combined loads of phosphorus discharged by point sources fell by about 30%, while nitrogen loads fell by about 7%. Over the same period, total nitrogen and phosphorus loads in the Waikato River increased,⁷ indicating that diffuse source contributions increased.

⁷ For example, see Figure 3 "*Mass Flows of Nitrogen and Phosphorus in the Waikato River at Narrows and the Waipā River at Whatawhata*" in Technical Report 2014/56.

48. It is therefore appropriate that the policies in PC1 tend to place more emphasis on seeking to reduce discharges of nitrogen, phosphorus, sediment and microbial pathogens from diffuse sources.

Policy 1

49. The Genesis submission (submission point PC1-8736) supported Policy 1 in the “same or similar form”. The s42A report recommends significant changes to Policy 1 that generally make it clearer that the intention is to reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens. I generally agree with the changes proposed for Policy 1, in particular the proposed changes to require all farming activities to operate at Good Farming Practice, or better and to include specific controls in resource consents that ensure contaminant losses will reduce.

Policy 5

50. The Genesis submission supported Objective 4 and the related Policy 5 as notified (submission points PC1-8798 and 8738). The s42A report recommends significant changes to Policy 5 to recognise that everyone should contribute to the changes needed, that the changes need to start now and that these need to be staged over time. I note that while the effect of any changes to Table 3.11-1 remain uncertain, it is also difficult to identify how those changes could affect the implementation of Policy 5 (and any other policy that refers to Table 3.11-1).
51. While I proposed some changes to Objective 4 in my Block 1 evidence, my proposed wording is consistent with the changes now being recommended in the s42A report. These changes acknowledge that all activities need to contribute to achieving the water quality attribute states, that changes need to start immediately and that the rate of change will need to be staged over time, which is reflected in the proposed Policy 5. I generally agree with the proposed rewording of Policy 5, provided that Table 3.11-1 remains as notified.

Policies 10 – 13

52. The Genesis submission (submission points PC1-8730, 8799, 8801 and 8805) supported the retention of PC1 as notified (subject to appropriate amendments) and polices 10 – 12 (subject to amendments).
53. As a general comment, from a planning perspective, I consider that there is significant value in Policies 10 – 13 providing specific guidance for the consideration of resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens. An applicant can look to these policies and clearly address the requirements of PC1 through investment decisions, and if they do, there is a greater likelihood that they would get a consent term in excess of 25 years. Given that a long-term consent duration provides clear investment certainty, there is a very real incentive for an applicant to seek consent for a discharge that ticks all the boxes in terms of the requirements of PC1 at the outset, rather than trying to develop this during a hearing process in response to matters raised by others.
54. There is also, in my opinion, obvious benefit to the decision maker in that these policies have a clear and specific framework in terms of how to assess any applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens (including for normally contentious matters such as consent duration).
55. I agree with the Officers in the s42A report in that it is appropriate to have specific policy guidance on point source discharges, separate to that for diffuse discharges, as point source discharges are already controlled through resource consent processes and the existing policy framework of the Waikato Regional Plan (and other statutory documents such as the Vision and Strategy). These require ongoing improvements in discharge quality in order to meet higher water quality standards.
56. I agree with the Officers that it would not be appropriate to extend Policies 10-13 to the consideration of resource consent applications for diffuse discharges given the policy framework proposed in PC1, for the reasons provided in the s42A report and in earlier parts of my evidence (in respect of the RPS).

Policy 10

57. The Genesis submission supported Policy 10 and proposed retention of the Regional Policy Statement definitions for “regionally significant infrastructure” and “regionally significant industry” (submission point PC1-8799).
58. Policy 10 requires decision makers to recognise and provide for the continued operation of regionally significant infrastructure and regionally significant industry when determining resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens.
59. The Officers have not recommended any amendments to Policy 10, and I support the retention of this policy as notified as it appropriately gives effect to the direction of the RPS in relation to regionally significant infrastructure such as the HPS.
60. I do note that the effect of Policy 10 is not to enable point source dischargers to have an “easy ride” through the consent process, given the overarching direction and requirements of the Vision and Strategy to improve the quality of the Waikato River. This policy will be weighed and balanced against other provisions of both PC1 and the operative Waikato Regional Plan when determining resource consent applications.
61. Having an enabling policy alongside the other policies in statutory documents applicable to water quality in the Waikato Region recognises that regionally significant infrastructure and regionally significant industry provide for social and economic wellbeing, and the resource consent process (required under the current rules of the Waikato Regional Plan) ensures these benefits can occur while also addressing and managing actual and potential adverse environmental and cultural effects (through the consent process and conditions placed on those consents).

Policy 11

62. The Genesis submission supported Policy 11 with amendments (PC1-8801). Policy 11 requires all those undertaking point source discharges of the four PC1 contaminants to water to adopt the best practicable option (“**BPO**”). I agree that the adoption of the BPO should be required for all discharges. I also consider that this should be in a context that requires adoption of a similar

approach for diffuse discharges as well (including, for example, adoption of the concept of Good Farming Practices as proposed in PC1 for diffuse discharges – although a definition of these practices should also be developed, perhaps based on the principles in the Good Farming Practice Action Plan For Water Quality 2018, to ensure that those practices focus on reducing nutrient losses and managing diffuse discharges).

63. However, inserting the phrase “minimum requirement” in Policy 11 suggests that dischargers who ‘only’ adopt the BPO should be doing more to address the quality of their discharge. The addition of “minimum requirement” adds no additional weight or value to the policy as the adoption of the BPO is required by the notified version of the policy.
64. I also note that the adoption of the BPO for point source discharges over many consenting processes has resulted in the contribution from point source discharges to contaminant loads in the Waikato River catchment substantially decreasing over the years, as has been identified in Waikato Regional Council Technical Report 2014/56 “*Sources of nitrogen and phosphorus in the Waikato and Waipā Rivers, 2003–12*” I referred to earlier.
65. In my experience, during each successive re-consenting of a point source discharge, stricter discharge quality limits and more restrictive conditions are placed on a consent. This occurred within the 2003 – 2012 period largely without the Vision and Strategy being in place, and with applicants adopting the BPO at the time the consent was sought. In the absence of any other changes (such as PC1), a similar trend can be expected, especially with the Vision and Strategy being given effect to on a consent by consent basis.
66. There is an inference in the s42A report (for example, paragraph 472) that a BPO assessment occurs in isolation of a consideration of the statutory and regulatory environment, which in my opinion is not the case. BPO not only requires consideration of what the best practicable option for the activity is but also consideration of what the best practicable option for achieving the required standards or objectives is. For discharges to the Waikato River, the BPO does not supersede the requirements of the Vision and Strategy. In my view, a BPO analysis will include consideration of the statutory and regulatory environment. In this context, the assessment is of what the best practicable option for achieving the requirements of the Vision and Strategy and PC1 is,

rather than what the best practicable option is for the particular activity giving rise to the discharge.

67. I agree with the Officers that the phrase “*at the time a resource consent application is decided*” adds little to the policy and can be deleted without affecting the thrust of Policy 11.
68. However, I am cautious of the other amendments proposed in respect of Policy 11, namely the amendments that result in an effects hierarchy being applied to consideration of point source discharges. This contrasts with the proposed approach to consideration for diffuse discharges – in the diffuse discharge context there is no presumption that all effects must firstly be avoided. I do not consider that Policy 11 should be framed in a manner that determines that effects must be firstly avoided, then only when it is determined they cannot be avoided, then they can be appropriately mitigated.
69. There are some effects that should be avoided, while it is appropriate some effects are mitigated (without first having to show how they cannot reasonably be avoided). The resource consent process, which almost every point source discharge is subject to as per the current rules in the Waikato Regional Plan (as a Discretionary Activity),⁸ allows for site or activity specific assessments of the effects of the discharge. The resource consent process will determine what effects can be reasonably avoided, which can be remedied and what effects can be mitigated. This can also enable assessment of whether previous consent processes have provided for avoidance of adverse effects such that mitigation or remediation actions are now appropriate considerations (or in some cases, are the only remaining options) where, for example, the best practicable option is already being implemented.
70. In respect of offset mitigation, I agree that it is appropriate for some activities to utilise an offset mitigation or environmental compensatory approach to manage the effects of those activities – again, this is circumstance specific. However, I am concerned that the phrase “*and where they cannot be*

⁸ For example, Rule 3.5.4.5 provides that any discharge of a contaminant into water, or onto or into land, in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water, that is not specifically provided for by any rule, or does not meet the conditions of a permitted or a controlled activity rule in the Plan, is a discretionary activity (requiring resource consent).

reasonably mitigated, it is encouraged that an offset measure be proposed...".

In my opinion, this will result in a requirement for an offset becoming a default expectation and considerable time being spent on debating offset mitigation measures irrespective of whether such measures are actually proposed or necessary for the particular consent application under consideration. In all likelihood, this offset measure would be largely relating to measures such as tree planting and fencing (and there is only so much land available for this to occur and is often made more complex by the need to utilise land not owned by the applicant).

71. My experience with respect to Policy C2 (which provides for consideration of offsetting measures or environmental compensation) in the National Policy Statement for Renewable Electricity Generation 2011⁹ is that submitters and decision makers focus on what offsetting or environmental compensation measures are proposed rather than considering whether there are any residual environmental effects that cannot be avoided, remedied or mitigated.
72. The Officers present an analysis in the s42A report that states that the RMA is not a "no effects" statute, which I agree with. Policy 11, as presented in the s42A report, sets up a consenting regime where considerable resources will be spent debating the merits of point source discharges offsetting their effects, with both submitters and the decision maker "encouraging" applicants to proffer an offset through the determining of their resource consent application, irrespective of whether the effects of the activity have been appropriately mitigated. In my view, in a contested resource consent process, all applicants will be encouraged to use an offset in addition to avoidance and mitigation of effects to enable their consents to be granted (irrespective of the effects of that activity).
73. In my experience, offset mitigation or environmental compensation is already a form of effects management that occurs through a resource consent process where it is warranted. With this additional policy support to encourage the use of such measures, I am concerned that this will be interpreted as being a

⁹ Policy C2 reads: *When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.*

requirement of holding a consent for a point source discharge in addition to other requirements that require the avoidance or mitigation of effects.

74. An offset or environmental compensation measure should only be utilised once the BPO requirements have been met, and to lessen any significant residual effect. The use of environmental compensation may also be appropriate if there is a clear and tangible benefit in undertaking a measure such as catchment-wide improvements (for example, tree planting) versus upgrading onsite treatment technologies for significant cost for only a small reduction in nitrogen, phosphorus, sediment or microbial pathogens.
75. I agree that offsets and environmental compensation have a place in a resource consent process. However, I am of the view that this should be entirely at the applicant's discretion to assist in addressing the effects of an activity. I consider that the offset mitigation needs to be proportional to the effects that the offset is being used to manage.
76. In that regard, I consider that there would be merit in separating the two concepts embodied in Policy 11 into separate policies, the first dealing with BPO and the second with offsets or environmental compensation so that the environmental compensation policy can be framed as separate to that of the BPO.
77. In addition to the above, "offset" has a specific meaning and is most widely used in the context of indigenous biodiversity. While the RMA provides no definition of offset, BBOP (2009)¹⁰ defines an offset (in the context of biodiversity) as being:
- Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground....*
78. In a biodiversity context, to be considered as an offset, the measure employed must achieve "no net loss". This directly contradicts the discussion in the

¹⁰ Business and Biodiversity Offsets Programme (BBOP). 2009. *Biodiversity Offset Design Handbook*. BBOP, Washington, D.C.

Officers report which correctly observes that the RMA is not a “no effects” statute.

79. PC1 defines an offset as:

Offset/s: For the purposes of Chapter 3.11 means for a specific contaminant/s an action that reduces residual adverse effects of that contaminant on water quality

80. I consider that, based on the definition of offset presented in PC1, the intent of Policy 11 and the most widely used definition and application of the offsetting concept, that Policy 11 relates to the concept of environmental compensation rather than offsetting.

81. Given this, in my view, the better wording to use to represent the intent of Policy 11 is “environmental compensation” (which is a form of mitigation and is used to reduce residual effects, or to promote a positive offsite effect).

82. This approach also aligns with s104 (clause (ab)) of the RMA which enables those considering an application for a resource consent to have regard to:

*“any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or **compensate** for any adverse effects on the environment that will or may result from allowing the activity”.*

83. I agree with the Officers recommendation in respect of clause (d) of Policy 11 that it is appropriate that there is the ability to have an offset (or compensatory) measure as a consent condition or another legally binding agreement.

84. However, I am aware that often alternative legally binding agreements are between the applicant and third parties (other than the decision maker) and can have confidentiality clauses that may not allow for the contents of the agreement to be discussed wider than the parties to whom the agreement relates. This will provide some challenges for the decision makers in terms of the ability to factor the offset mitigation / environmental compensation into their consideration of the resource consent application.

85. I also consider that there needs to be appropriate provision in PC1 to enable establishment of new point source discharges and for flexibility in managing other discharges of PC1 contaminants. Environmental compensation measures are an important way to provide for these.

86. I propose alternative wording for Policy 11 in Appendix 1.

Policy 12

87. The Genesis submission supported retention of Policy 12 as notified (submission point PC1-8805). This includes retention of clause (d) in the policy.

88. Policy 12 provides matters for which a decision maker must consider when deciding a resource consent application for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens. I agree with the majority of the Officers recommendations in respect of this Policy, provided that Table 3.11-1 remains as notified.

89. However, I do not agree with the Officers recommendations to entirely delete clause (d). In my opinion, it is fundamentally important for decision makers to consider the diminishing return from investment in treatment technology options.

90. In my view, this clause captures circumstances when the investment in treatment technology would be disproportionate in relation to the improvement in the quality of the discharge. I consider the consideration of this matter in a resource consent process to be fundamental and a common-sense approach. While I do acknowledge that this is part of the BPO, in my experience, this diminishing return of investment concept is often overlooked. Clearly, there are circumstances where treatment, while technically feasible, provides far less environmental benefit than alternative investments are capable of achieving.¹¹

¹¹ By way of example (although not water related) in a situation where an applicant could technically install electrostatic precipitators to reduce discharge particulate concentrations at significant expense, but instead proposes to use lower cost treatment (such as bag filters) to reduce particulates and agrees to invest in improved equipment for other discharges (such as home fires), Regulation 17 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 provides that a consent authority may grant a

91. Therefore, I consider it important that the principle of decision makers being directed to consider the diminishing return of investment in treatment technology option should be explicitly recognised at the policy level in PC1, separate to the requirement to adopt the BPO (in Policy 11).

92. In my opinion for the reasons discussed, clause (d) in Policy 12 should be retained.

Policy 13

93. The Genesis submission (PC1-8730) supported retention of PC1 as notified, including the certainty that policies such as Policy 13 provided.

94. Policy 13 helpfully provides policy guidance on determining the most appropriate consent duration for a point source discharge of nitrogen, phosphorus, sediment and microbial pathogens. I support the recommendation to make the policy specific to “any point source discharge” consent granted (as recommended in the Mercury NZ submission).

95. However, the policy as notified, in my opinion, provided much needed specificity as to what a “longer consent duration” is. That is, I consider that 25 years or more is an appropriate minimum long-term consent duration for activities that achieve consistency with the attribute states and targets in PC1 (provided that Table 3.11-1 remains as notified).

96. I do not agree with the Officers recommendation to remove that degree of specificity as to what comprises a longer duration consent.

97. The phrase “longer term consent duration” is subjective – an applicant may consider a longer-term consent duration is 35 years, while an opponent of a discharge may feel that anything more than 5 – 10 years is an appropriate “longer-term” consent duration. In my experience, the appropriate duration of a resource consent is of considerable debate in a contested resource consent process and is often a key reason for an appeal to the Environment Court.

consent for a discharge of particulate to a polluted airshed if it is satisfied that the applicant can reduce the PM₁₀ discharged from another source or sources into the polluted airshed by the same or a greater amount than the amount likely to be discharged into the relevant airshed by the discharge to be allowed by the proposed consent.

98. In my view, if an applicant demonstrates consistency with the requirements of PC1, then this degree of debate on consent duration simply should not occur.
99. Having a starting point of 25 years for activities achieving consistency with the requirements of PC1 provides an appropriate balance between investment certainty for the applicant and certainty from an environmental perspective that the activity will be consistent with PC1 as clause (a) only applies to those activities and applicants who have demonstrated that they will achieve consistency with achieving the water quality attribute states of PC1. The water quality attribute states, in turn, have been demonstrated through the Technical Leaders Group, Collaborative Stakeholder Group and section 32 process as being the mechanism to achieve the requirements of the Vision and Strategy.
100. The 25-year consent duration starting point does not apply to point source discharges that do not achieve the requirements of PC1 which, in my view, is appropriate.
101. In my opinion, the 25-year starting point for point source discharges achieving consistency with the requirements of PC1 should be retained.
102. In any event, in my experience such discharge consents also include review conditions requiring an assessment or analysis of technology updates and / or BPO updates at regular intervals during the term of consent. These “technology review” conditions require the consent holder to undertake a process to research the developments in technology that have been made since the consent was granted (or since the last technology review occurred) and how these might apply to the consented activity.
103. Such conditions also typically have linkages to a review clause (under s 128 of the RMA) which allows for an update or review of the water quality standards being applied to the discharge. This means that the requirements in terms of nitrogen, phosphorus, sediment and microbial pathogens reductions can never be regarded as being “set” for the full duration of a consent and can be revisited at regular intervals while providing security for a consent holder that the consented activity can continue.
104. As an example, the resource consents authorising various activities at the HPS have such consent conditions. The HPS consents were granted for a

duration of 25 years because appropriate measures have been taken to control the effects of the discharges from the site. The conditions provide for regular reviews of technology relevant to the HPS operation and for reviews of the consent conditions to ensure that over the consent duration the activity remains appropriate.

105. By way of example, HPS resource consent 123645 authorises the discharge of process water to the Waikato River. Condition 27 is as follows:

The Consent Holder shall engage an appropriately qualified and experienced professional to evaluate and report on new developments in technology as applicable to the operations directly associated with the exercise of this consent, with respect of improving the process and minimising environmental effects. The initial report shall be forwarded to the Consent Authority by 30 November 2022 and updated reports at six yearly intervals thereafter. The reports shall include the following:

- a) A comparison of the new developments in technology available compared to that installed at the site.*
- b) Any improvements that could be expected by adopting that technology.*
- c) The feasibility, including financial implications of adopting that technology.*

The reports shall be completed to a standard acceptable to the Consent Authority, acting in a technical certification capacity. In determining if the report is to an acceptable standard, the Consent Authority shall be limited to an assessment of whether or not the report adequately addresses the matters identified in the condition.

106. Condition 31 of the same resource consent 123645 is as follows:

The Consent Authority may, after allowing 28 days for consultation with the Consent Holder to identify whether the purposes of subclause a), b) and c) of this condition would be more appropriately addressed through alternative means, serve notice of its intention to review the conditions of this consent as follows:

...

b) within three months of receiving a report compiled under condition 27 of this consent, in order to require the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment in accordance with section 128 (1)(a)(ii) of the Resource Management Act 1991. In assessing the best practicable option, regard shall be had to the report compiled under condition 27 of this consent.

80. In my opinion, there are numerous mechanisms that can be employed in resource consent conditions to give the consent authority an ability to review the BPO over the term of a consent. An applicant should not be penalised by being given a short-term duration due to the unwillingness of a consent authority to utilise standard review clauses. Proposed Policy 13 as notified appropriately reflects the relevance of long duration consents to investment security decisions.

Additional Attributes – Policy Orphans

107. The Genesis submission (PC1-8730) supported retention of PC1 as notified, including the certainty that the objectives, policies and methods provide.
108. An important focus of PC1 is the management of diffuse source discharges and in response to this, all the policies in PC1, and as recommended to be amended or retained in the s42A report are specific to the management of nitrogen, phosphorus, sediment and microbial pathogens. As I have noted previously, this is consistent with, and appropriate for, the particular focus of PC1 being to restore water quality within the Waikato and Waipā Rivers so that they are safe for people to swim in and take food from.
109. Genesis support for PC1 (submission point PC1-873) was predicated on retention of the attributes listed in PC1 as notified. Through the submissions and evidence presented in relation to the attribute tables in PC1 (in the first block of hearings), there have been requests for additional attributes to be included in the PC1 framework; including for example, temperature, dissolved oxygen and MCI.
110. However, no amendments to the objective and policy cascade of PC1 were requested to reflect these additional attributes being requested. I am not aware of any evidence that directly relates these additional attributes to the

four PC1 contaminants (nitrogen, phosphorus, sediment and microbial pathogens) being considered or to the suitability of water for swimming or food gathering, particularly with respect to the temperature of the mainstem or tributaries of the Waikato River. In my opinion, none of these attributes are relevant to the management of diffuse source discharges as proposed in PC1.

111. For example, as PC1 is primarily focussed on diffuse source nutrient discharges, it appropriately identifies strategies and methods for reducing nutrient losses from land use activities. Where other attributes to be managed are contemplated then, in my opinion, the PC1 objectives and policies would need to reflect this in the same way. For example, if temperature were to be an attribute to be managed, the objectives and policies should include strategies for managing temperature, such as control of riparian vegetation.
112. By not having policies relating to the additional attributes proposed and how they are to be managed included in the PC1 policy framework, including those additional attributes in Table 3.11-1 would in my opinion create “policy orphans” in that there would be no objective or policy linkage to the proposed attribute. Such policies were not envisaged in the proposed PC1.
113. The Department of Conservation (“**DOC**”) presented evidence on the need for additional attributes. However, their submission sought no changes to Policy 10 – 13 to reflect these changes (their submission generally supported these policies), with those policies still referring specifically to nitrogen, phosphorus, sediment and microbial pathogens.
114. For example, the DOC submission supported Policy 10 with amendments – those amendments being:

Point source discharges should be considered as part of any land-based allocation regime which the Director General has sought be immediately implemented. In the absence of this, the Director-General considers that the achievement of water quality goals needs to be considered when considering all resource consent applications for point source discharges.

The Director-General seeks that “regionally significant industry” be defined for the purpose of the proposed plan change so it is clear what is intended to be captured by this term.

115. Similarly, DOC supported Policies 11 – 13 with amendments, with none of those amendments requesting the expansion of the policy to the additional attributes (particularly temperature) being sought for inclusion in PC1.
116. I have also reviewed the DOC submission in respect to the remaining policies in PC1, which are also specific to managing nitrogen, phosphorus, sediment and microbial pathogens. No amendments have been sought to any of the PC1 policies in respect of the additional attributes sought to be included in Table 3.11-1.
117. Notwithstanding the above, I note that the Waikato Regional Council have initiated a project called “Healthy Environments | He Taiao Mauriora” with the purpose of reviewing both the Regional Coastal Plan and Regional Plan. The webpage outlining the process states that the reviewed Regional Plan will be notified in two phases – Phase 1 covering the coastal environment in 2020/2021 and Phase 2, the remaining regional issues, in 2022/2023. In my opinion, this review would be the appropriate process for considering all remaining NPSFM requirements and the additional attributes being sought for inclusion in PC1 by other parties.
118. In my view, it is more appropriate to consider the “other attributes” in this wider regional plan review process.

Definitions

119. The s42A report has recommendations in respect of two definitions of relevance to Genesis interests and the point source discharge policies be included in PC1:
- Point source discharge; and
 - Regionally significant infrastructure.
120. I agree with the Officers recommendations in respect to these definitions for the reasons stated in the s42A report.

Conclusions

121. I consider that:

- (a) The intent of PC1 should be retained to give effect to the direction and requirements of Objective K in the Vision and Strategy and to the NPSFM.
- (b) That the intent of PC1 in respect of its policy guidance on the consideration of resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens should be retained.
- (c) Specific changes to Policies 11 – 13 should be made to ensure the original intent of the policies is maintained, including:
 - (i) Not including the words “as a minimum” in Policy 11 proposed in the s42A report;
 - (ii) Not including changes proposed in the s42A report for Policy 11 that would create a hierarchy from avoiding adverse effects to offsetting effects;
 - (iii) Retaining clause d as notified in Policy 12; and
 - (iv) Retaining reference to a consent duration exceeding 25 years in Policy 13.
- (d) The “offset” provisions in PC1 should refer to environmental compensation rather than offsets.
- (e) There should be separate policies relating to BPO and environmental compensation (the latter being referred to as an offset in the notified and s42A report versions of Policy 11) as these are fundamentally different concepts and requirements.

122. I have summarised the changes that I propose in **Appendix 1**.

Richard Matthews

3 May 2019

Appendix 1: Summary of PC1 Changes

Black strikeout and underlining represents changes recommended in the Stage 2 s42A report.

Policy 11 as notified:

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

Require any person undertaking a point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipā 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 or a Freshwater Management Unit located upstream, and*
- d. Offset measure remains in place for the duration of the consent and is secured by consent condition.*

Change to Policy 11:

~~Policy 11: Application of Best Practicable Option and mitigation or offsets of effects to point source discharges~~

~~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 Waipā 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.~~

Policy 11A: Environmental Compensation

~~Where it is not practicable to avoid or mitigate all any adverse effects, cannot be reasonably avoided, they should be mitigated, and where they cannot be reasonably mitigated, it is encouraged that an offset~~ An environmental compensation measure may be proposed in an alternative location or locations to the point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipā River catchments, for the purpose of:

1. *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; or*
2. *enabling a new point source discharge to be established; or*
3. *enabling a site-specific increase in discharges of nitrogen, phosphorus, sediment or microbial pathogens.*

~~Provided that the:~~

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

- d. *Environmental compensation measure results in a reduction in catchment-wide and sub-catchment-wide discharges of nitrogen, phosphorus, sediment and microbial pathogens; and*
- ed. ~~Offset~~*Environmental compensation measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism.*

Change to Policy 11 (clean version):

Policy 11: Application of Best Practicable Option

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 Waipā River catchments to adopt the Best Practicable Option to avoid or mitigate the adverse effects of the discharge.

Policy 11A: Environmental Compensation

An environmental compensation measure may be proposed in an alternative location or locations to the point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipā River catchments, for the purpose of:

1. *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; or*
2. *enabling a new point source discharge to be established; or*
3. *enabling a site-specific increase in discharges of nitrogen, phosphorus, sediment or microbial pathogens.*

Provided that the:

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

Management Unit or a Freshwater Management Unit located upstream; and

- d. Environmental compensation measure results in a reduction in catchment-wide and sub-catchment-wide discharges of nitrogen, phosphorus, sediment and microbial pathogens; and*
- e. Environmental compensation measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism.*

Policy 12 as notified:

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

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*
- 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.*

Change to Policy 12 as recommended in the s42A report:

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

When deciding a resource consent application, cConsider 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 water quality attribute states targets in Table 3.11-1~~Objective 3~~ or the progression towards the 80-year water quality attribute states targets in ~~Objective 4~~Table 3.11-1, 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*
- 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~~ Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time ~~and to~~ meet the water quality attribute states targets specified above.; ~~and~~*
- d. *~~The diminishing return on investment in treatment plant upgrades in respect of any resultant reduction in nitrogen, phosphorus, sediment or microbial pathogens when treatment plant processes are already achieving a high level of contaminant reduction through the application of the Best Practicable Option.~~*

[Note: I propose retention of clause d but accept other changes proposed in s42A report]

Change to Policy 12 (clean version):

Policy 12: Considering point source discharges/Te Kaupapa Here 12: He take anō hei whakaaro ake mō ngā rukenga i ngā pū tuwha e pā ana ki ngā whāinga ā-kounga wai

When deciding a resource consent application, 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 achievement of the short term water quality attribute states in Table 3.11-1 or the progression towards the 80-year water quality attribute states in Table 3.11-1, 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*
- b. Past upgrades undertaken to reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and*
- c. Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time to meet the water quality attribute states 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.*

Policy 13 as notified:

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tono whakaaetanga mō te pū tuwha

When determining an appropriate duration for any consent granted consider the following matters:

- a. A consent term exceeding 25 years, where the applicant demonstrates the approaches set out in Policies 11 and 12 will be met; and*
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and*
- c. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment*

in treatment plant upgrades or land-based application technology).

Change to Policy 13:

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tono whakaaetanga mō te pū tuwha

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

- a. The appropriateness of a ~~longer~~ consent duration ~~A consent term exceeding 25 years~~, where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1 ~~the approaches set out in Policies 11 and 12 will be met~~; and*
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and*
- c. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).*

Change to Policy 13 (clean version):

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tono whakaaetanga mō te pū tuwha

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

- a. The appropriateness of a consent duration exceeding 25 years, where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1; and*
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and*

- c. *The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).*

Appendix 2: Examples of Relevant Projects – Richard Matthews

- Ngāwhā Geothermal Power Station Expansion (regional and district resource consent applications and designation).
- Castle Hill Wind Farm (regional and district resource consent applications, covering two Regional and two District Council jurisdictions).
- Rodney Thermal Power Station regional (regional and district resource consent applications, Plan Change and designation).
- Ngatamariki Geothermal Project (regional and district resource consent applications).
- Huntly Combined Cycle Gas Turbine Power Station (regional and district resource consent applications).
- Awhitu Wind Farm Project (district resource consent applications).
- Hau Nui Wind Farm Extension Project (district resource consent applications).
- Huntly Power Station (regional resource consent applications).
- Tongariro Power Scheme (regional resource consent applications).
- Wairakei and Ohaaki Geothermal Power Stations (Council reporting officer).
- McLachlan Geothermal Power Station (Council reporting officer).
- Prefeasibility Assessments for Ranfurly, Greens Road, Turitea, Puketiro, Hawke's Bay, Puketoi, North Wairarapa, Scotts Road and Waiouru Wind Farm Prospects.
- Transpower 400 kV Transmission Corridor (Council advisor).
- Pokeno Infant Formula Plant (regional and district resource consent applications).
- Watercare Waikato River take (regional resource consent applications).

- Tasman Pulp & Paper Mill (regional resource consent applications).
- SCA Hygiene Australasia Tissue Plant (regional resource consent applications).
- Analysis and review of Regional Plans, District Plans and Policy Statements from throughout New Zealand, and National Policy Statements and Environmental Standards.