

Before the Freshwater Hearing Panel

Under: the Resource Management Act 1991

In the matter of: Proposed Change 1 to the Regional Policy Statement for the
Wellington Region

Hearing Stream 3
Statement of evidence of Caroline Horrox on behalf of Wellington Water
(Planning)

Date: 11th August 2023

INTRODUCTION:

- 1 My full name is Caroline Anne Horrox. I am employed as a contractor by Wellington Water Ltd (WWL) to provide planning related advice and support on a range of district and regional planning related matters. I was previously involved in drafting WWL's further submission on the Proposed Plan Change 1 to the Regional Policy Statement for the Wellington Region (**PC1**).
- 2 I have prepared this statement of evidence on behalf of WWL in respect of planning related matters arising from submissions, further submissions, and the various section 42A reports associated with PC1.
- 3 This statement of evidence relates to Hearing Stream 3 – which covers general climate change related matters and climate change topics associated with climate resilience, nature-based solutions, energy, waste and industry and natural hazards.
- 4 I am authorised to provide this evidence on behalf of WWL.

QUALIFICATIONS AND EXPERIENCE

- 5 I hold a Bachelor of Arts (Psychology and Art History) and Master of Science (Natural Resource Management). I have over 20 years of experience in resource management and planning with roles in state owned enterprise, central government, local government and the private sector. Most of my experience has been associated with infrastructure providers in both technical advisory and management roles. I am currently self employed as a planning contractor undertaking a range of policy and project related planning work.

CODE OF CONDUCT

- 6 I have read the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SCOPE OF EVIDENCE

- 7 My statement of evidence covers the following matters:
- 7.1 The impacts of climate on water security.
 - 7.2 The role three waters infrastructure has in responding to climate change and implementing Te Mana o te Wai.
 - 7.3 Providing for 'Regionally Significant Infrastructure' (RSI) in relation to areas subject to natural hazards.
 - 7.4 The need for 'nature-based solutions' related provisions to reflect the practicality of their application for RSI related projects and infrastructure.
 - 7.5 Supporting the delivery of RSI benefits.
- 8 My comments on the provisions subject HS3 are focused on ensuring these matters are appropriately addressed in the RPS.

**INTRODUCTION TO CHAPTER 3.1A AND CLIMATE CHANGE RESOURCE
MANAGEMENT ISSUES**

- 9 The RPS PC1 chapter introduction 3.1 *Climate Change* identifies 6 issues of significance to iwi and the region for climate change. WWL’s submission on PC1 requested the addition of a 7th issue, to recognise the adverse effects of climate change on water security.
- 10 Water security is affected by climate change in two ways:
- 10.1 Increased potential and severity of drought reducing both ground and surface water supplies.
- 10.2 Increased risk of saline intrusion into aquifers.
- 11 In his s43A report (Climate change general, paragraph 103) Mr Wyeth acknowledges WWL’s concern but does not consider water security warrants its own “issue” as he believes it is adequately covered by existing Issue 3.
- 12 Issue three focuses on the risks associated with natural hazards that are exacerbated by climate change and highlights the hazard exposure of our communities, land, infrastructure. In my view Mr Wyeth’s proposed amendments to the Issue 3 wording in his s42A report improves on the original as it better recognises the role of hard engineering solutions in improving resilience to natural hazards and climate change.
- 13 I concur with Mr Wyeth that water security is adequately highlighted in Issue 3 to the extent required, given these issues are intended to cover all critical matters at a very high level. It is my opinion that it is more important that water security is addressed through RPS regulatory provisions (for example Policy 65 and Method 34), which WWL has made specific submission points on where appropriate, and which do not need to be further considered in this hearing stream.

NATURAL HAZARDS

- 14 In PC1, both Objective 20 and Policy 51 require the risks and consequences of natural hazards to be 'minimised'. In their submission, WWL requested that the word "minimise" was defined as per the PNRP to ensure consistency across these related documents.
- 15 In his S42A report on natural hazards, Mr Beban accepted this position (paragraph 176) and recommended a new definition for 'minimise' is included in PC1. I support the inclusion the new definition as proposed in the s42A report and consider that this addresses WWL's concern.
- 16 WWL's submission also requested changes to Policy 29 and Policy 51 to recognise that it may sometimes be necessary to locate regionally significant water related infrastructure in high hazard locations as part to the wider delivery of water services and to deliver outcomes that support Te Mana o te Wai. For example, streams and rivers and the coastal marine area (CMA) are generally considered high hazard areas. These are also areas in which WWL often has a need to locate, operate and upgrade infrastructure associated with water abstraction, the discharge and treatment of stormwater and wastewater. Climate change impacts are likely to increase the hazard risk for areas in which both existing and potential new infrastructure is located.
- 17 In the s42A report, Mr Beban accepted that Policy 29 and Policy 51 would benefit from amendments to address this matter (Paragraph's 250 and 292) and proposed changes accordingly.
- 18 With regard to Policy 29, Mr Beban has proposed the inclusion of the qualifier in Policy 29(d) which allows for development to occur in areas at risk from natural hazards if there is a "*functional or operational need to be located in these areas*" (paragraph 256 of the s42A report). Mr Beban has proposed the addition of a similar qualifier in Policy 51 (g) (paragraph 302 of the s4A report).

19 I support the addition of Mr Beban’s proposed qualifiers to Policy 29 and Policy 51 and consider that these provide a similar outcome to the amendments proposed by WWL in their submission.

NATURE BASED SOLUTIONS

20 WWL supports the promotion and use of nature-based solutions to reduce emissions and address the effects of climate change in principle.

21 However, as outlined in their submission, WWL had several concerns regarding the *implementation* of the RPS PC1 nature-based solutions provisions as follows:

21.1 The RPS provisions for nature-based solutions needed to reflect that they are not always practicable to implement. For example, regarding three waters, nature-based solutions may be physically challenging to employ due to topography or urban constraints. They also may not always be the best option to deliver Te Mana o te Wai which may sometimes be better supported by hard engineering solutions.

21.2 Policy CC.14 required amendments to clarify that water provided from sources other than WWL should only be for non-potable uses and also to clarify the term “community scale”.

21.3 The need for more action-oriented language in Policy CC.4 to require district and regional plans to include policies, rules and/or methods to “*enable and promote*” the actions and initiatives described in Policy CC.14 rather than just “*provide*” for them.

22 In her s42A report for climate-resilience and nature-based solutions, Ms Guest has made a significant number of amendments and additions

to the nature-based solutions related definitions and provisions. These changes have addressed some of the issues noted above (and as raised in WWL's submission) to some degree. However, these changes have also created various other issues as outlined below.

Definitions

23 **Definition: Nature-based solutions** – In their submission, WWL raised the concern that this definition did not give effect to the NPS-FM because it didn't make adequate reference to Te Mana o te Wai or fresh water. WWL also noted that the definition would benefit from an additional example.

24 In her 42A report, Ms Guest states that while the definition does not specifically mention freshwater, this is clearly a part of "the natural environment" referenced and considers that not every provision that gives effect to Te Mana o te Wai needs to make specific reference to it. I agree that the definition as originally proposed in PC1 and as reframed by Ms Guest does not necessitate a specific reference to Te Mana o te Wai and consider that the *provisions* rather than the *definition* are the best vehicle to address WWL's concern.

25 Regarding the nature-based solution examples, Ms Guest does not consider that WWL's proposed example (the application of wastewater sludge to land rather than landfills) meets the definition of a 'nature-based solution'. In my opinion, the addition of a range of examples proposed by Ms Guest renders WWL's initial suggestion unnecessary. However, I consider some amendments could be made to the examples as proposed by Ms Guest for clarity and consistency:

25.1 Firstly, if the new definition of climate-resilience is to be included (which I support, as noted below), then the phrase "*strengthen the resilience*" in the third line should be replaced by "*strengthen climate-resilience*" for consistency.

The remaining words after that phrase can be deleted as they replicate in substance what is contained in the new definition of climate-resilience.

25.2 Secondly, I suggest renaming the second set of examples from its current “*Increasing resilience (climate change adaptation)*” to “*strengthening climate-resilience*”. This is because ‘*strengthen*’ is the directive in the definition, and “*climate change adaptation*” is separately defined and means something different from *climate-resilience*.

26 **New definition: Climate-resilience** - in her s42a report (paragraph 184), Ms Guest has recommended a new definition for ‘Climate-resilience/Climate-resilient’. I support this proposed new definition.

27 **New definition: Water sensitive urban design** - in her s42a report (paragraph 165), Ms Guest has recommended a new definition for water sensitive urban design which mirrors that in the Wellington Natural Resources Plan. I support this proposed new definition.

Non-potable water uses and the term ‘community scale’

28 WWL’s concern regarding the term “community scale” and the importance of restricting water harvesting to non-potable uses in Policy CC.14, has been resolved as Ms Guest has accepted the amendments proposed by WWL in their submission (paragraph 175 of her s42A report).

Provisions for nature-based solutions should reflect the practicality of their application

29 As noted by WWL in their submission, nature-based solutions aren’t always practicable in Wellington’s constrained urban environments and in some instances may present a direct conflict with the operation of an

infrastructure asset. WWL proposed the addition of the term “where practicable” in Objective CC.4 and Policy CC.7 to reflect this.

30 In her s42A report, Ms Guest agrees with submitter concerns (including WWL) that nature-based solutions are not always available nor necessarily the most appropriate response for all development scenarios (paragraph 201).

31 Regarding Objective CC.4, Ms Guest has rejected WWL’s proposed ‘where practicable’ addition on the basis that *“the role of an objective at the level of a RPS is to provide a clear outcome or end point that policies seek to achieve at a regional scale”* and that *“the way in which the objectives will be achieved is guided by the policies and methods”* (paragraph 113).

32 I generally agree with Ms Guest’s position with respect to Objective CC.4 and consider that Policy CC.4 and CC.14 (as well as Policy CC.4A and CC.14A as recommended by Ms Guest) and Policy 7 are the relevant provisions to focus on to address WWL’s concerns.

33 Policy CC.7 has been entirely reframed by Ms Guest in her s42A report. The revised version focuses on stakeholder engagement rather than the requirements of district and regional plans, and as such a “where practicable” (or equivalent) type qualifier is no longer applicable. As such, I have no further concerns regarding Policy CC.7.

34 Ms Guest has also proposed extensive changes to Policies CC.4, CC.4A, CC.14 and CC.14A, with a similar structure and wording for all. I am supportive of the changes, particularly the directive to ‘seek’ and ‘prioritise’, which I consider resolve some of WWL’s initial concerns about the provisions for nature-based solutions.

35 I consider that all four policies (CC.4, CC.4A, CC.14 CC.14A) are quite complex, and some minor changes would help readability. I have

provided some suggested drafting below for the primary paragraph of Policy CC.14, and the same changes would also apply to Policies CC.4, CC.4A, and CC.14A.

36 The wording recommended by Ms Guest is:

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district ~~or regional plan,~~ seek that development and infrastructure is located, designed and constructed in ways that provide for *climate-resilience*, ~~provide for actions and initiatives, particularly prioritising~~ the use of *nature-based solutions*, ~~that contribute to climate-resilient urban areas including by,~~ as appropriate to the activity:

37 I propose the changes in green, below:

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district ~~or regional plan,~~ seek that development and infrastructure is located, designed and constructed in ways that provide for *climate-resilience*, ~~provide for actions and initiatives, particularly prioritising~~ the use of *nature-based solutions*, ~~that contribute to climate-resilient urban areas~~ This includes, including by, as appropriate to the activity:

38 I also note that Policies CC.4, CC.4A, CC.14 and CC.14A are all aimed at providing for climate resilience, but they all contain examples (variously paragraphs (d) and (c)) that require significant adverse effects on climate change mitigation and climate change adaptation functions and values of ecosystems to be avoided, minimised or remedied. This means the sub paragraph is broader than the primary paragraph. I suggest that the 'examples' supporting clauses should be reduced to refer only climate-resilience functions and values.

- 39 The first paragraphs of the explanations to Policies CC.4 and CC.4A also refer to “*climate change functions and values of ecosystems*”. Consistent with the changes described above, these should both be amended to refer to “*climate-resilience functions and values of ecosystems*”.
- 40 In their submission, WWL supported Policy CC.14 but asked for amendments to CC.4 to strengthen the requirements for district and regional plans to include policies, rules and/or methods to achieve climate-resilient urban areas to ‘*enable and promote*’ the actions and initiatives described in Policy CC.14 rather than just ‘*provide*’ for them. Ms Guest’s proposed revisions to CC.4 and CC.14 revisions have strengthened the wording in this respect by ‘*requiring*’ development and infrastructure to be located, designed and constructed in ways that provide for climate-resilience. I support words to this effect if Ms Guest’s wording is retained or something similar if there are further changes to these policies.

SUPPORTING THE DELIVERY OF TE MANA O TE WAI

- 41 WWL is committed to giving effect to Te Mana o te Wai as required by the Water Services Act 2021, and the Water Services Entities Act 2022, and as required by the National Policy Statement for Freshwater Management 2020 (NPS-FM).
- 42 Objective CC.1 of PC1 explicitly identifies the need to consider climate change mitigation and adaptation as an integral part of well-planned infrastructure. Giving effect to this objective requires RPS policies and methods that support the ability of infrastructure providers to give effect to Te Mana o te Wai.
- 43 To this end, WWL’s submission requested that either Policy CC.3 was amended to require district plans to include objectives, policies, rules and methods that enable infrastructure to give effect to Te Mana o te

Wai, or another policy was amended, or a new policy was drafted to achieve the same policy outcome.

44 Policy CC.3 is currently a transport focused policy. As such, I concur with Ms Allwood in her s42A report on Transport (paragraph 266) that this is not the best policy to use to address this matter.

45 In my view, the delivery of Te Mana o te Wai is best enabled by RPS policies that *support and promote* the delivery of RSI benefits and as well as ensuring that other policies do not unreasonably restrict the ability of RSI to deliver Te Mana o te Wai. As such, I have recommended further changes to Policy 7 (in particular) and Policies CC.4 4A, 14 and 14A as discussed elsewhere in my evidence.

ENERGY, WASTE AND INDUSTRY

Supporting the delivery of RSI benefits

46 As outlined in WWL's original submission and noted above, the ability of infrastructure providers to give effect to Te Mana o te Wai, support growth, manage biodiversity, provide resilience for climate change and manage natural hazard risks relies heavily on district and regional plans incorporating appropriately enabling provisions. The WWL submission proposed the addition of a new clause to the RPS Policy 7 to require regional and district plans to include provisions to provide "appropriate planning pathways" for delivering the benefits of RSI.

47 In his s42A report on Energy, waste and industry (Paragraph 98) Mr Wyeth shares the concerns expressed by a number of submitters that Policy 7 should be more directive and enabling for renewable energy generation related RSI and suggests wording changes accordingly. The s42A report does not make specific comment on the amendments to Policy 7 proposed by WWL.

48 In my view, the need for more directive and enabling language in Policy 7 should be employed to support the delivery of *all* RSI benefits. Three waters infrastructure, for example, can contribute to achieving climate change resilience through increased potable water storage and improved stormwater infrastructure. Extensive infrastructure is currently being planned to upgrade the wastewater networks in the Wellington region to reduce the frequency of overflows in wet weather, which is important for implementation of the NPS-FM. The delivery of all this infrastructure is reliant on enabling provisions in regional and district planning documents.

49 The case to strengthen the wording of Policy 7 to be more enabling of RSI in general is also supported by the current wording of Policy 39. This states that:

“When considering an application for a resource consent, notice of requirement or a change, variation or review of a district or regional plan, particular regard shall be given to:

(a) the social, economic, cultural, and environmental benefits of energy generated from renewable energy resources and/or regionally significant infrastructure, in particular where it contributes to reducing greenhouse gas emissions...”

50 In my view, requiring “*particular regard*” requires significantly more active consideration of a matter than the need to simply “*recognise*” a matter (as required by policy 7).

51 Policy 7 and Policy 39 must work effectively together to achieve the outcome they seek to address (the delivery of RSI benefits). Policy 7 focuses on the delivery of RSI benefits through district and regional plan provisions and Policy 39 focuses on delivery of RSI benefits through consents and notices of requirements. The two aspects are

interlinked and, in my view, neither policy will be easily achievable without the support of the other.

- 52 Policy 7 will be inconsistent with the wording of Policy 39 if it only requires 'recognition' of the social, economic, cultural and environmental benefits of RSI.
- 53 To better facilitate the delivery of the benefits of RSI, and ensure consistency across interlinked provisions, I therefore recommend changes to Policy 7(a) to require district and regional plans to policies and/or methods that not only recognise but also '*support*' or '*promote*' the social, economic, cultural and environmental benefits of RSI, ie:
- "District and regional plans shall include policies and/or methods that (a) recognise **and support** the social, economic, cultural and environmental benefits of regionally significant infrastructure"...*
- 54 Both the terms '*support*' and '*promote*' have been used throughout the RPS and PC1 where it has been deemed that a policy required a more directive and/or enabling focus.

Creation of a 'third tier' of infrastructure

- 55 In their submission, WWL expressed concern that the addition of the reference to '*low or zero carbon infrastructure*' in Policy 7(a) and to RSI where it '*contributes to reducing greenhouse gas emissions*' in Policy 39(a), created a third tier of infrastructure to the detriment of RSI in general.
- 56 In the s42 report on Energy, waste and industry (paragraph 103) Mr Wyeth agrees that the term '*low and zero carbon regionally significant infrastructure*' in Policy 7 (a) could be interpreted as creating a third infrastructure tier, which was not the intent. He has proposed changes to Policy 7(a) to address this which resolves WWL's concerns.

- 57 With regard to Policy 39, the s42A report recommends:
- 57.1 that the explanation for Policy 39 is amended to be less focused on the adverse effects of REG and RSI and more focused on the benefits of this infrastructure (paragraph 146), and
 - 57.2 Policy 39(a) is amended to replace the term “*in particular*” with “*including*” to ensure the GHG emission reduction benefits of RSI are considered where relevant, but without implying more weight is to be given to these benefits in all circumstances over the other benefits of that infrastructure (paragraph 143).
- 58 These two changes proposed by Mr Wyeth resolve WWL’s concerns regarding the creation of a third tier of infrastructure.

Caroline Horrox
11th August 2023

