Before the Independent Hearings Panels

Under the Resource Management Act 1991

In the matter of submissions on proposed Plan Change 1 to the Regional Policy

Statement for the Wellington Region

LEGAL SUBMISSIONS ON BEHALF OF PORIRUA CITY COUNCIL (S30)

Hearing Stream 3 (Climate change)

14 August 2023



May it please the Panel

1. Introduction

- These submissions are filed on behalf of Porirua City Council (PCC), in advance of hearing stream 3 (HS3) on proposed Plan Change 1 (Change 1) to the Regional Policy Statement for the Wellington Region (RPS). These submissions supplement those filed on behalf of PCC in relation to hearing stream 1.
- 1.2 PCC understands the intention of a number of the provisions allocated to HS3 is to provide direction to territorial authorities (including PCC), including on how to consider climate change through their district plans, and when considering applications for resource consent or notices of requirement.
- 1.3 PCC supports stronger regional direction on climate change issues, and generally supports the intent of the provisions allocated to HS3, and the outcomes sought by these provisions. However, PCC seeks amendments to a number of the HS3 provisions to ensure that there is improved clarity with their application and in order to resolve potential jurisdictional issues.
- **1.4** As a summary, PCC seeks relief that will ensure that:
 - (a) There is clarity with the policy direction provided by the RPS, through the Change 1 provisions;
 - (b) That the direction provided by the RPS does not necessarily duplicate other functions, or require PCC to unnecessarily revisit its district plan framework; and

¹ As the Panel is aware the hearings on PCC's proposed District Plan (**PDP**) were completed earlier in 2023, and PCC is awaiting decisions and recommendations from the independent hearing panel that considered the PDP.

- (c) The Change 1 provisions are within the jurisdiction of the Resource Management Act 1991 (RMA).
- **1.5** Against this background, these submissions address the following matters:
 - (a) The ability of the RPS to address climate change issues;
 - (b) The proposed "consideration policies" that have been allocated to HS3;
 - (c) The relevance of the National Adaptation Plan (NAP) and the Emissions Reduction Plan (ERP);
 - (d) The necessity for climate change provisions to recognise the role of urban development in achieving climate change outcomes; and
 - (e) Definitions.
- 1.6 The detailed reasons for the amendments sought by PCC to Change 1 are set out in the planning evidence filed on behalf of PCC in relation to HS3.

2. The ability of the RPS to address climate change issues

As noted in PCC's submission, Change 1 proposes a substantial shift in policy direction, which comes at a time of further substantial change within the Resource Management Act 1991 (RMA) system and the Wellington regional context (with PCC and Wellington City Council's district plans currently under review, including the intensification planning instrument variation of PCC's proposed district plan).²

² Refer PCC's submission, p 1.

- While PCC recognises that Greater Wellington Regional Council (GWRC) is seeking to address climate change issues in a more comprehensive way, it comes at a challenging time for several of the territorial authorities, and Change 1 (and HS3 specifically), is proposing to introduce complex concepts and outcomes that cannot easily be achieved within a RMA framework.
- 2.3 Section 59 of the RMA prescribes the purpose of a RPS as:3

to achieve the purpose of the Act by providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region.

- 2.4 While this purpose is expressed broadly, RPS provisions must be linked to the "sustainable management" purpose of the RMA.⁴ For the reasons set out below, PCC is concerned that Change 1 proposes to include a number of provisions that appear to fall outside of the jurisdiction of a RPS (and the sustainable management purpose of the RMA).
- **2.5** Examples of provisions that PCC considers raise jurisdictional issues are:
 - (a) Objective CC.2, which requires that costs and benefits of transitioning to a low emission and climate resilient region are "shared fairly". The RMA does not direct, or include provision for cost transfer or sharing as a general concept. Instead, the RMA is focussed on the *management* of the effects of climate change (s7(i)), without any expectation that adverse effects are to engage shared management obligations. It is submitted that this proposed objective is uncertain as to the outcome to be

³ RMA, s 59.

⁴ Section 5(2): **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while— (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

achieved, not capable of being given effect to by PCC in its own district plan,⁵ and potentially outside the jurisdiction of the RMA.⁶ If a similar objective is to be proposed, then it would potentially be open to GWRC to develop a climate change policy under the Local Government Act 2002, and draw on the purpose and well-beings in section 10 of that Act.

- (b) Objective CC.3 sets ambitious targets for reductions in net greenhouse gas emissions. While RMA planning frameworks can provide support to achieving emissions reductions, given the effects management focus of the RMA it is submitted that the actions required to achieve these targets largely fall outside of the RMA.⁷
- effects and that they become involved in appropriate climate change mitigation and adaptation responses. Again, while this is commendable, it is unclear how it fits within an RMA framework. While planning documents can incorporate provisions to encourage mitigation and adaptation responses (e.g. by directing development to climate resilient locations, or encouraging higher density development located near public transport hubs), planning documents cannot compel people or businesses to take action.⁸ Objectives framed in such an aspirational way, but without being linked to any tangible activity, will not be able to be given effect to in lower order documents, and will remain within the sole ambit of GWRC.
- (d) Policy CC.8 provides direction (relative to regional and district plans) to prioritise the reduction of greenhouse gas emissions.As the regulation of discharges to air are a regional council

⁵ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [68].

⁶ Refer [2.4] above.

⁷ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [75].

⁸ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [84]–[86].

function under section 30, it is not clear how PCC (or any other territorial authority) will be able to implement this policy through its district plan, without causing overlap of regulatory roles.

- (e) Policy CC.11 encourages the preparation of whole of life carbon emissions assessments for transport infrastructure consent applications and notices of requirement. Policy CC.11 intends for this information to assist with evaluating certain matters, and overall whether the infrastructure will contribute to the regional targets set by (presumably) Objective CC.3. Given PCC's response to Objective CC.3, and PCC's section 31 functions, it is submitted that there is limited, if any, scope for PCC to consider the whole of life carbon emissions impact of transport infrastructure in its regulatory capacity.9
- (f) As notified, Policy CC.13 required consideration of greenhouse gas emissions for any application for resource consent associated with a change in intensity or type of agricultural land use. This proposed policy appeared to apply to territorial authorities (as well as regional councils) although the direction related to regional council functions. PCC supports the recommendation in the Officer's Report to delete this policy.¹⁰
- 2.6 The proposed objectives and policies that direct action beyond PCC's powers and statutory functions has the potential to create confusion for both policy and plan users, and in terms of how these provisions are to be applied to RMA decision making (for example when processing resource consents). Further, it introduces potential uncertainty in relation to whether PCC has properly given effect to the RPS, if its district plan does not implement the RPS directives that fall beyond its functions.

⁹ Mr Smeaton statement of evidence (Climate Change – 'Energy, Waste and Industry' and 'Transport'), 14 August 2023 at [80].

¹⁰ Section 42A report (HS3 - Climate Change - Agricultural Emissions), 31 July 2023 at [106].

- As discussed in PCCs submissions for hearing stream 1,¹¹ GWRC and PCC have functions prescribed by the RMA (by sections 30 and 31 respectively). Those functions both empower and constrain the councils in what they can achieve through their RMA policy and planning documents. The scope of direction in an RPS is therefore limited to the functions and/or powers as expressed in sections 30 and 31, in other words it cannot direct a territorial authority to perform functions other than those expressed in section 31. PCC's ability to give effect to the higher order RPS is likewise limited by its functions/powers set out in section 31.
- 2.8 While PCC acknowledges that there can be scope for overlapping functions between regional and district councils, PCC is unable to control the use of land for purposes that are solely within GWRC's functions. Any RPS policies and methods that relate to overlapping functions (such as in controlling land use) should be expressed so they clearly fall into sections 30 and 31 functions. 12

Duplication of regulatory functions

- 2.9 When determining the scope of the RPS to address climate change issues, it is appropriate to consider whether these issues are already addressed, or can be more appropriately managed, through other regulatory tools. New Zealand has a multi-pronged response to climate change, much of which is provided for in the Climate Change Response Act 2002 (CCRA).¹³
- 2.10 Some of the provisions in Change 1 appear to duplicate provisions in other regulatory documents. Examples include the introduction of cost-sharing principles, 14 and provisions that seek to reduce emissions across

¹¹ PCC Opening legal submissions, 13 June 2023 at [4.6]–[4.8].

¹² Telecom New Zealand Ltd v Environmental Protection for Children Trust, C36/2000, 28 March 2003, at [15].

¹³ The CCRA provides for New Zealand's emissions trading scheme (Part 4), sets up the Climate Change Commission (Part 1A), provides for New Zealand's 2050 target for emissions reduction (section 5Q), and requires the preparation of an Emissions Reductions Plan and a National Adaptation Plan (Parts 1B and 1C).

¹⁴ Objective CC.2, discussed in Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [66]–[72].

certain sectors¹⁵ (the emissions trading scheme also addresses both these matters to some degree). In both instances, the emissions trading scheme already provides a regulatory response. In section 32 terms, an evaluation should include consideration of whether the outcome that is being sought should be left to other existing, or more appropriate, regulatory methods.

2.11 In PCC's submission, duplicating functions (and in a way that may not be capable of implementation at one level) will increase the regulatory burden and uncertainty for territorial authorities, and applicants. It is submitted that this potential should be avoided, for cost efficiency and strategic planning effectiveness reasons.

Repeal of the bar on consideration of impact on climate change

- 2.12 In November 2022, sections 17-21, 35 and 36 of the Resource Management Amendment Act 2020 (RMAA) came into force. These provisions repealed sections 70A, 70B, 104E and 104F of the RMA, which to date have prevented consent authorities from considering the effects of the discharge of greenhouse gases, in both consenting and plan making. Those provisions operated to prevent regional councils from considering the effects on climate change when making rules, or from assessing applications for discharge of greenhouse gases.
- 2.13 The Climate Change Response (Zero Carbon) Amendment Act (CCRAA) 2019 also came into force on 14 November 2019. The CCRAA expressly permits decision-makers acting under other legislation to take into account statutory emissions targets, emissions budgets, and emissions reduction plans (section 5ZN). The repeal of the RMA provisions noted above removed the direct conflict between the RMA and the CCRAA. Of relevance, the CCRAA sets the "goal" of transitioning to net zero carbon emissions by 2050 (section 5Q).

¹⁵ Objective CC.3 and Policies CC.5 and CC.13.

- 2.14 Due to these amendments and policy direction, whether an activity affects the level of greenhouse gases being discharged to, or being removed from the atmosphere, and the effects of the activity on climate change can be considered. The indirect impacts of an activity on climate change will therefore be a consideration, even if the activity does not directly discharge any greenhouse gases.
- 2.15 PCC acknowledges that Change 1 seeks to introduce RPS direction to assist the local authorities in the Wellington Region in undertaking these assessments. An example is Policy CC.11 discussed in Mr Smeaton's evidence. This policy encourages provision of a 'whole of life carbon emissions assessment' for new land transport proposals. However, it remains unclear how, or the extent to which, such an assessment will inform the consideration of relevant effects in considering an application for resource consent.
- As these types of effects have not traditionally been taken into account in RMA decision making, it is anticipated the approach to consideration of effects on climate change will be developed over time. Where a higher order document (including an RPS) directs or encourages consideration of these effects in a particular way, in our submission it must be made clear how this is to be achieved.

3. Consideration policies

- 3.1 The HS3 provisions include a number of "consideration policies", which are discussed in the evidence of Mr McDonnell¹⁶, Mr Smeaton¹⁷ and Mr Rachlin¹⁸.
- 3.2 PCC's fundamental concerns with these policies relate to how they will be interpreted. It is acknowledged that the RPS may direct matters to be considered by territorial authorities when undertaking their RMA

¹⁶ Policies 51 and 52.

¹⁷ Policies 39, CC.9, CC.10 and CC.11.

¹⁸ Policies CC.12 and CC.14.

functions, however the way these policies are expressed has the potential to create confusion about when and how they are to be applied. For example, when a territorial authority has given effect to the RPS provisions that relate to the same issue/subject matter as the "consideration policy", it is not clear whether it continues to apply.

- 3.3 In PCC's submission amending these policies to be transitional or subject to an expiry date (i.e. they would no longer apply once a territorial authority gives effect to the RPS in its district plan), would resolve some of the interpretation issues.¹⁹
- 3.4 In our submission, without including a clause within these provisions that clearly defines when they will cease to apply, there will be a (potentially substantial) degree of complexity and uncertainty if the consideration policy applies alongside the relevant district plan provisions that give effect to the RPS.

4. Relevance of the ERP and NAP

- 4.1 As set out in the opening legal submissions for GWRC, the amendments to the RMA which came into effect in November 2022 do not apply.²⁰ This includes the specific direction introduced into the RMA for regional councils to have regard to the ERP and NAP when changing an RPS.²¹
- 4.2 We agree with the position advanced by GWRC²² that the ERP and NAP fall within the scope of "management plans and strategies prepared under other Acts", and that GWRC must therefore have regard to both documents through Change 1.

¹⁹ Attachment A at pages 8–10.

²⁰ Opening legal submissions on behalf of GWRC, 8 June 2023 at [14].

²¹ RMA, s 61(2)(d) and (e).

²² GWRC reply submissions - Hearing Stream 2, 28 July 2023 at [10].

4.3 Although both the ERP and NAP are expressed at a high level, PCC submits that they are of direct relevance to the climate change provisions in the RPS. Mr Rachlin has discussed the ERP and NAP in detail in his evidence.²³

5. Reference to urban development in climate change policies

- Section 62(3) requires the RPS to "give effect to" the National Policy Statement on Urban Development 2020 (NPS-UD). This obligation requires GWRC to apply this the higher order policy document in the Wellington context.²⁴
- 5.2 While we acknowledge that urban development is the subject of hearing stream 4, PCC submits that as currently drafted Change 1 does not give sufficient consideration to the need to provide for urban development (i.e. in accordance with the NPS-UD). Mr Rachlin's evidence explains how the climate change provisions in Change 1 do not appropriately recognise the role that urban development can play in reducing greenhouse gas emissions.²⁵
- 5.3 The following provisions of the NPS-UD are considered to be of particular relevance to this topic:
 - (a) Objective 3 which requires the RPS to "enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:
 - (a) the area is in or near a centre zone or other area with many employment opportunities
 - (b) the area is well-serviced by existing or planned public transport

²³ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [24]–[25], [27], [31]–[32] [34], [44], [48] and [51].

²⁴ Wairoa River Canal Partnership v Auckland Regional Council [2010] NZEnvC 309 at [12].

²⁵ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [30]–[33].

- (c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment."
- (b) Objective 8 provides that "New Zealand's urban environments support reductions in greenhouse gas emissions".
- (c) Policy 1(e) which provides "Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:... (e) support reductions in greenhouse gas emissions".
- 5.4 The NPS-UD includes obligations on both regional councils and territorial authorities to ensure that there is sufficient housing and business land capacity to respond to anticipated population growth.²⁶
- PCC considers that the need for urban development, and how it is enabled and provided for, is relevant to ensure that the RPS is in accordance with NPS-UD. As highlighted by the provisions above, there is a clear relationship (recognised in national policy) between the development of urban environments, and the mitigation of climate change and reduction of greenhouse gas emissions. PCC submits that this should be better recognised in the Change 1 provisions.
- lt is also relevant that the introductory text to the climate change chapter lists transport as the highest source of greenhouse gas emissions in the Wellington Region. Given the potential for intensified, or well-located, urban development to reduce reliance on high-emitting transport modes, it is submitted that it would be appropriate for the climate change provisions of the RPS to acknowledge the important role of urban development.²⁷ For example, increasing density around public transport stations both enables mode shift to active and public transport modes, as

Refer to Policy 7, and the implementation requirements set out in clauses 3.2, 3.3, 3.6, 3.9 and 3.10.

²⁷ Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [31]–[33].

well as creating a more compact urban form.²⁸ Where this intensification is located in climate resilient areas this also assists communities in responding to climate change effects.²⁹

6. Definitions

- As identified in PCC's submission and in the evidence of Mr Rachlin³⁰, the HS3 provisions introduce several new concepts that would benefit from additional clarity through the use of appropriate definitions.
- 6.2 PCC has particular concerns with the uncertain nature of some terms, and their definitions, and seeks guidance as to what some of the concepts introduced by Change 1 mean, and how they should be applied in a district planning context.
- 6.3 Mr Rachlin's evidence specifically addresses the definition of "nature-based solutions". He considers that this definition needs to recognise measures that are already provided for in district plans, in particular where they provide for the outcomes sought by the "nature-based solutions" provisions, even if they are not labelled as "nature-based solutions". Mr Rachlin's evidence provides examples of where PCC's PDP already provides nature-based solutions.³¹
- 6.4 Furthermore, as discussed by Mr Rachlin, there is an overlap between "nature-based solutions" as a concept and "green infrastructure" as defined in the National Planning Standard. Mr Rachlin has proposed amendments which address this issue.³²

Noting that this is directed by Policy 3 of the NPS-UD. PCC has implemented this direction through its intensification planning instrument (**IPI**). Hearings on PCC's IPI concluded in early 2023 and PCC is currently awaiting the recommendation from the Hearing Panel.

Mr Rachlin statement of evidence (Climate Change – General), 14 August 2023 at [38]–[39].

³⁰ Mr Rachlin statement of evidence (Climate Change – Climate resilience and nature-based solutions), 14 August 2023 at [16]–[26], [34], [49], [50]–[51], [57], [75]–[81] and [82].

³¹ Mr Rachlin statement of evidence (Climate Change - Climate resilience and nature-based solutions), 14 August 2023 at [43].

Mr Rachlin statement of evidence (Climate Change - Climate resilience and nature-based solutions), 14 August 2023, refer to the discussion regarding Issues 2 - 4.

6.5 Similarly, the definition of "climate resilient / climate resilience" proposed by the section 42A report would benefit from amendment to provide further clarity around the outcomes that are sought. Mr Rachlin recommends a modified definition to improve clarity and certainty, which is submitted to be more appropriate for inclusion in Change 1.³³

7. PCC provisions and experts

- **7.1** A consolidated version of PCC's proposed amendments to the HS3 provisions is attached to these submissions as **Attachment A**.
- **7.2** PCC has filed four statements of expert planning evidence in support of its submission:
 - (a) Mr Michael Rachlin Climate Change General, and Climate Resilience and Nature-Based Solutions;³⁴
 - (b) Mr Rory Smeaton Energy Waste and Industry, and Transport;and
 - (c) Mr Torrey McDonnell Natural Hazards.

Dated: 14 August 2023

M G Wakefield / K E Viskovic / S B Hart

Mr Rachlin statement of evidence (Climate Change - Climate resilience and nature-based solutions), 14 August 2023 at [50]–[51].

³⁴ Two separate statements.

Attachment A

Consolidated recommended to Change 1

This shows the amendments and additions recommended by Michael Rachlin, Rory Smeaton, and Torrey McDonnell in their statements of planning evidence.

It does not include those provisions where the witnesses agree with amendments recommended by reporting officers.

Climate Change

Chapter introduction

3.1A Climate Change

Long term weather records show that seven of the past nine years have been amongst New Zealand's warmest on record, with 2021 and 2016 being the two hottest recorded years. In the Wellington region, we have one of the highest rates of sea level rise in New Zealand due to the effects of global sea level rise, compounded by a regional trend of tectonic subsidence.

<u>Predictions for climate change impacts in the Wellington Region35 significant impacts by 2090 if global emissions are not significantly reduced. The annual regional temperatures, for instance, could increase by up to 3°C. The key highlights from the report include:</u>

- Wellington and Wairarapa will experience a significant increase in hot days
- Frost occurrence, including in the high elevation areas, is projected to significantly decrease
- Spring rainfall will reduce by up to 15 percent in eastern areas
- Up to 15 percent more winter rainfall could be experienced along the west coast
- The risk of drought will increase in the Wairarapa
- More extreme rainfall events

Some changes are occurring faster than previously expected, such as sea level rise and ocean warming, leading to more frequent and energetic storms causing an increase in flooding, coastal erosion and slips in many parts of the region.

While historical *emissions* mean that we are already locked into continued global warming until at least mid-century, and longer for sea-level rise, there is still opportunity to avoid the worst impacts of climate change if we act urgently across all sectors to make signification reductions in global greenhouse gas *emissions*.

³⁵-NIWA, 2017: Climate change and variability – Wellington Region-

In 2021 He Pou a Rangi the Climate Change Commission issued a call to all New Zealanders "to take climate action today, not the day after tomorrow", concluding that New Zealand needs to be proactive and courageous as it tackles the challenges the country will face in the years ahead. All levels of central and local government must come to the table with strong climate plans to get us on the right track, concluding that bold climate action is possible when we work together. ²⁶

While this will require bold and decisive action, there is a need to act carefully, recognising that the costs of change will not be felt equally across our communities and that provision needs to be made for an equitable transition.

In 2019, Greater Wellington Regional Council declared a climate emergency, pledging to become carbon neutral by 2030 and to take a leadership role to develop a Regional Climate Emergency Response Programme, working collaboratively with iwi, key institutions and agencies to reduce greenhouse gas *emissions* and prepare for the unavoidable effects of climate change, supporting international and central government targets for *emissions* reductions and adaptation planning.

The key areas of action required to address climate change are to:

- 1. Reduce gross greenhouse gas *emissions*. This includes transitioning as rapidly as possible from fossil fuels to renewable energy and recognising that methane reductions offer a significant opportunity for global cooling in the short term.
- 2. <u>Increase greenhouse gas sinks through carbon sequestration, while recognising that this is only a short term solution, and that the focus must be on reducing gross GHG *emissions*.</u>
- 3. Take adaptation action to increase the resilience of our communities, the natural and built environment to prepare for the changes that are already occurring and those that are coming down the line. Critical to this is the need to protect and restore natural ecosystems so they can continue to provide the important services that ensure clean water and air, support indigenous biodiversity and ultimately, people.

The causes of climate change need to be addressed by internationally coordinated action, but our success depends on responses at national, local and individual levels.

The resource management system in Wellington has a key role to play in ensuring that the region significantly reduces its greenhouse gas emissions and adapts to become more *climate-resilient*. This will occur in a way that is integrated with:

- Other legislation and regulations that contribute to these outcomes, such as the Building Act; and
- Alongside the actions identified in the National Adaptation and Emissions Reduction Plans

to achieve the necessary integrated response to climate change.

This chapter sets out the climate change objectives for the region and how these will be achieved, taking an integrated management approach. This recognises that the outcomes will be achieved

³⁶ New Zealand Climate Change Commission, 2021: Ināia tonu nei: a low emissions future for Aotearoa

by a range of actions across the natural and built environments, managed by other chapters in the Regional Policy Statement.

The regionally significant issues, and the issues of significance to the Wellington region's iwi authorities for climate change are:

1. Greenhouse gas emissions must be reduced significantly, immediately and rapidly

Immediate, rapid, and large-scale reductions in greenhouse gas emissions are required to limit global warming to 1.5°C, the threshold to avoid significant impacts on the natural environment, the health and well-being of our communities, and our economy. Extreme weather events and sea level rise are already impacting our region, including on biodiversity, water quality and availability, and increasing the occurrence and severity of natural hazards. Historical emissions mean that we are already locked into continued warming until at least mid-century, but there is still an opportunity to avoid the worst impacts if global net anthropogenic CO₂ emissions are reduced by at least 50 percent from 2019 levels by 2030, and carbon neutrality is achieved by 2050. In the Wellington Region, the main sources of greenhouse gas emissions are transport (39 percent total load in 2018-19), agriculture (34 percent), and stationary energy (18 percent).

Climate change and the decline of ecosystem health and biodiversity **EW** are 2. inseparably intertwined

Climate change is placing significant additional pressure on species, habitats, ecosystems, and ecosystem processes, especially those that are already threatened or degraded, further reducing their resilience, and threatening their ability to persist. This, in turn, reduces the health of natural ecosystems, affecting their ability to deliver the range of ecosystem services, such as carbon sequestration, natural hazard mitigation, erosion prevention, and the provision of food and amenity, that support our lives and livelihoods and enable mana whenua to exercise their way of being in the Te Ao Tūroa, the natural world.

The risks associated with natural hazards are exacerbated by climate 3. change



The hazard exposure of our communities, land, infrastructure, food (including mahinga kai), and water security is increasing because of climate change impacts on a range of natural hazards. Traditional approaches to development that have not fully considered the impacts on natural systems, and our over-reliance on hard engineered protection works, which will inevitably become overwhelmed and uneconomic to sustain, will ultimately increase the risk to communities and the environment.

4. The impacts of climate change will exacerbate existing inequities

The impacts and costs of responding to climate change will not be felt equitably, especially for Māori. Some communities have no, or only limited, resources to enable mitigation and adaptation and will therefore bear a greater burden than others, with future generations bearing the full impact.

Climate change threatens tangible and spiritual components of Māori 5. being



Climate change threatens both the tangible and spiritual components of Māori well-being, including Te Mana o Te Wai and Te Rito o Te Harakeke, mahinga kai, and taonga species, and the well-being of future generations. Significant sites for Māori, such as marae, wāhi tapu and urupā, are particularly vulnerable as they are frequently located alongside the coast and fresh waterbodies.

6. Social inertia and competing interests need to be overcome to successfully address climate change

Many people and businesses lack an understanding of the connection between their actions, greenhouse gas emissions and climate change and the ways that it will impact their lives. In turn, this detracts from our ability to conceive of the changes we can make to help the transition to a low-emissions and climate-resilient future. Social inertia and competing interests are the biggest issues to overcome to address climate change.

Amend Table 1A: Climate change objectives and titles of policies and methods to achieve the objectives to include Policy 30 and Policy 31.

Climate Change objectives

Objective CC.1

By 2050, the Wellington Region is a low-emission and climate-resilient region, where climate change mitigation and adaptation are an integral part of:

- (a) sustainable air, land, freshwater, and coastal management,
- (b) well-functioning urban environments and rural areas, and
- (c) well-planned infrastructure.

The management of natural and physical resources contribute to increased climate-resilience in the Wellington region.

Objective CC.2

The costs and benefits of transitioning to a low-emission and climate-resilient region are shared fairly to achieve social, cultural, and economic well-being across our communities.

Objective CC. 3 2

To support the global goal of limiting warming to 1.5 degrees Celsius, net greenhouse gas emissions from transport, agriculture, stationary energy, waste, and industry in the Wellington Region are reduced:

- (a) By 2030, to contribute to a 50 percent reduction in net greenhouse gas emissions from 2019 levels, including a:
- (i) 35 percent reduction from 2018 levels in land transport generated greenhouse gas emissions, and
- (ii) 40 percent increase in active travel and public transport mode share from 2018 levels, and
- (iii) 60 percent reduction in public transport emissions, from 2018 levels, and
- (b) By 2050, to achieve net-zero emissions.

Management of natural and physical resources contribute to a 50% reduction in net emissions from 2019 levels by 2030 and net-zero *greenhouse gases emissions* by 2050 in the Wellington region.

Objective CC.4

Nature-based solutions are an integral part of climate change mitigation and adaptation, improving the health and resilience of people, biodiversity, and the natural environment, and Green Infrastructure are prioritised in how the Region reduces emissions and becomes climate-resilient.

Objective CC.5

By 2030, there is an increase in the area of *permanent forest* in the Wellington Region, maximising benefits for carbon sequestration, indigenous biodiversity, land stability, water quality, and social and economic well-being.

Objective CC.6

Resource management and adaptation planning increase the resilience of communities and the natural environment to the short, medium, and long-term effects of climate change.

Objective CC.7

<u>People and businesses understand what climate change means for their future and are actively involved in planning and implementing appropriate mitigation and adaptation responses.</u>

Objective CC.8

<u>Iwi and hapu Mana whenua/tangata whenua are empowered to make decisions to achieve climate-resilience in their communities</u>

Proposed amendment to Chapter 4.1: Regulatory climate change policies

<u>Policy CC.1: Reducing greenhouse gas emissions associated with transport demandand infrastructure – district and regional plans</u>

District and regional plans shall include objectives, policies, rules and/or other methods that assist to optimise transport demand by requireing that all new or upgraded and altered land transport infrastructure to be is designed, constructed, and operated in a way that contributes to an efficient transport network, maximises mode shift from private vehicles to public transport and active modes, and supports reductions in reducing greenhouse gas emissions. by:

- (a) Optimising overall transport demand:
- (b) <u>Maximising mode shift from private vehicles to public transport or active modes;</u> and
- (c) Supporting the move towards low and zero-carbon modes.

Explanation

This policy requires transport infrastructure planning (including design, construction and operation) to consider and choose solutions that will contribute to reducing greenhouse gas emissions.

Policy CC.2: Travel demand management plans – district plans

By 30 June 2025, dDistrict plans shall include objectives, policies and rules that require subdivision, use and development to support reductions in greenhouse gas emissions by requiring consent applicants applications for high trip generating activities to: provide travel demand management plans to minimise reliance on private vehicles and maximise use of public transport and active modes for all new subdivision, use and development over a specified development threshold where there is a potential for a more than minor increase in private vehicles and/or freight travel movements and associated increase in greenhouse gas emissions.

- (a) demonstrate how the subdivision, use and development will maximise use of public transport and active modes; and
- (b) demonstrate how the subdivision, use and development will minimise use of private vehicles.

Explanation

Location suitable development thresholds triggering a consent requirement for a travel demand management plan are to be developed by territorial authorities and should apply to Significant residential, education, office, industrial, community, entertainment and other land use activities that could generate significant private vehicle trips and freight travel. Inclusion of appropriate measures within the design and operation of the activities can assist in maximising sustainable transport modes and minimising greenhouse gas emissions.—Development thresholds should specify the trigger level (for example, number of dwellings, number of people accommodated or gross floor area) where the travel demand management plan requirement applies.

<u>Policy CC.3: Enabling a shift to low and zero-carbon emission transport – district plans</u>

By 30 June 2025, dDistrict plans shall include objectives, policies, rules and/or other methods that support reductions in greenhouse gas emissions by providing for, and where appropriate enabling, infrastructure that enable infrastructure that supports the uptake of zero and low-carbon transport modes and development of multi modal transport networks that contribute to reducing greenhouse gas emissions.

Explanation

<u>District plans must provide a supportive planning framework (for example, permitted activity status) for zero and low-carbon multi modal transport infrastructure, such as public transport infrastructure, cycleways and public EV charging network.</u>

Policy CC.4: Climate resilient urban areas – district and regional plans



District and regional plans shall include policies, rules and/or methods to provide for climate-resilient urban areas by providing for actions and initiatives described in Policy CC.14 which support delivering the characteristics and qualities of well-functioning urban environments. increased climate-resilience, by prioritising the use of nature-based solutions and green infrastructure.

Explanation

Policy CC.4 directs regional and district plans include relevant provisions to provide for climate resilient urban areas. For the purposes of this policy, climate-resilient urban areas mean urban environments that have the ability to withstand:

- Increased temperatures and urban heat island
- Increased intensity of rainfall and urban flooding
- Droughts and urban water scarcity and security
- Increased intensity of wind, cold spells, landslides, fire, and air pollution

The policy is directly associated with Policy CC.14 which provides further direction on actions and initiatives to provide for climate resilient urban areas. It is noted that other policies of this RPS also provide for actions and initiatives to deliver climate resilient urban areas, including Policy FW.3.

Policy CC.8: Prioritising greenhouse gas emissions reduction over offsetting - district and regional plans

District and rRegional plans shall include objectives, policies, rules and/or methods to prioritise reducing greenhouse gas emissions in the first instance rather than applying offsetting, and to identify the type and scale of the activities to which this policy should apply.

Explanation

This policy recognises the importance of reducing gross greenhouse gas emissions as the first priority, and only using carbon removals to offset emissions from hard-to-abate sectors. Relying heavily on offsetting will delay people taking actions that reduce gross emissions, lead to higher cumulative emissions and push the burden of addressing gross emissions onto future generations.

Policy CC.x: Nature-based solution (stormwater management strategies and water sensitive urban design) - district plans

District plans shall include objectives, policies, rules and/or other methods that enable, where appropriate, the implementation of stormwater management strategies and water sensitive urban design.

Explanation

This policy recognises the importance of an integrated management approach to the management of stormwater in a way that contributes to increased *climate-resilience* as well freshwater quality outcomes.

Policy CC.x: Nature-based solution (esplanade reserves) - district plans

<u>District plans shall include objectives, policies, rules and/or other methods that recognise and provide for the role of esplanade reserves and esplanade strips in increasing climate-resilience.</u>

Explanation

This policy recognises the role of esplanade reserves and esplanade strips to increase <u>climate-resilience</u> by mitigating the effects of flooding and making room for the natural functioning of rivers.

Proposed amendment to Chapter 4.2: Regulatory climate change policies – matters to be considered

<u>Policy CC.9: Reducing greenhouse gas emissions associated with transport infrastructure-subdivision, use or development – consideration</u>

When considering an application for a resource consent, or notice of requirement, or a change, variation or review of a regional or district plan, particular regard shall be given to whether ensure that the subdivision, use and or development have been contributes to a well-functioning urban environment by being planned in a way that supports reductions in greenhouse gas emissions from transport, including by optimising to optimise overall transport demand, maximising transport mode shift from private vehicles to public transport or active modes, and supporting low and zero-carbon transport modes in a way that contributes to reducing greenhouse gas emissions.

Explanation

This policy requires regional and district councils to consider whether subdivision, use and development proposals have <u>fully</u> considered <u>all</u> options to reduce greenhouse gas <u>emissions</u> from transport, including maximising transport mode shift as far as practicable.

<u>Policy CC.10: Freight movement efficiency and minimising greenhouse gas emissions</u> <u>– consideration</u>

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a regional or district plan for freight distribution centres and new industrial areas or similar activities with significant freight servicing requirements, particular regard shall be given to the proximity of efficient transport networks and locations that will contribute to efficient freight movements and minimising associated greenhouse gas emissions.

When considering an application for a resource consent or notice of requirement only allow for a new *freight depot* or industrial area where the resulting freight movements will be efficient and support reductions in greenhouse gas emissions, including through the availability of appropriate existing or planned transport network connections.

Explanation

This policy requires decisions for freight land use or servicing to consider transport efficiency to contribute to minimising greenhouse gas *emissions*.

<u>Policy CC.11: Encouraging whole of life carbon emissions assessment for land transport infrastructure – consideration</u>

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a regional or district plan, a whole of life carbon emissions assessment is encouraged for all new or altered transport infrastructure as part of the information submitted with the application. This information will assist with evaluating the potential greenhouse gas emissions, options for reducing direct and indirect greenhouse gas emissions and whether the infrastructure has been designed and will operate in a manner that contributes to the regional target for a reduction to transport-related greenhouse gas emissions.

Encourage whole-of-life carbon emissions assessments to be provided with resource consent applications to the Wellington Regional Council for new or upgraded land transport infrastructure, in accordance with regional carbon emission assessment guidance developed by Wellington Regional Council.

Explanation

This policy encourages a whole of life carbon emissions assessment for new or upgraded altered transport infrastructure. This assessment will provide information and evidence on predicted emissions to enable assessment of impacts and options in the context of regional targets to reduce greenhouse gas emissions. Waka Kotahi has a tool providing accepted assessment methodology.

Policy CC.14: Climate-resilient urban areas – consideration



When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, provide for actions and initiatives, particularly the use of nature-based solutions, that contribute to climate-resilient urban areas, including:

- (a) maintaining, enhancing, restoring, and/or creating urban greening at a range of spatial scales to provide urban cooling, including working towards a target of 10 percent tree canopy cover at a suburb-scale by 2030, and 30 percent cover by 2050,
- (b) the application of water sensitive urban design principles to integrate natural water systems into built form and landscapes, to reduce flooding, improve water quality and overall environmental quality.
- (c) capturing, storing, and recycling water at a community-scale (for example, by requiring rain tanks, and setting targets for urban roof area rainwater collection),
- (d) protecting, enhancing, or restoring natural ecosystems to strengthen the resilience of communities to the impacts of natural hazards and the effects of climate change.
- (e) providing for efficient use of water and energy in buildings and infrastructure, and
- (f) <u>buildings and infrastructure that are able to withstand the predicted future</u> temperatures, intensity and duration of rainfall and wind.

Explanation

<u>Climate change, combined with population growth and housing intensification, is increasingly challenging the resilience and well being of urban communities and natural ecosystems, with increasing exposure to natural hazards, and increasing pressure on water supply, wastewater and stormwater infrastructure, and the health of natural ecosystems.</u>

This policy identifies the key attributes required to develop climate-resilience in urban areas and requires district and regional councils to take all opportunities to provide for actions and initiatives, particularly nature-based solutions, that will prepare our urban communities for the changes to come.

Policy CC.18: Increasing regional forest cover to support climate change mitigation: "right tree-right place" – non-regulatory



Promote and sSupport the planting and natural regeneration of permanent forest to maximise the benefits for carbon sequestration, indigenous biodiversity, erosion control, freshwater and coastal ecosystems, and the social and economic well-being of local communities. Priority should be given to promoting and incentivising the planting and regeneration of permanent indigenous forest in preference to exotic species, particularly on highly erodible land and in catchments where water quality targets for sediment are not reached.

Explanation

Policy CC.18 promotes the planting of trees to contribute to achieving net zero emissions by 2050 while seeking an increase in forest extent that maximises the co-benefits for indigenous biodiversity, land stability, aquatic ecosystem health, and social and economic well-being, as directed by Objective CC.5.

Policy FW.8: Land use adaptation – non regulatory – Wellington Regional Council



Regional Council will Ppromote and support water resilience and climate change adaptation in land use practices and land use change including:

- (a) Preparing and disseminating information about climate resilient practices
- (b) promoting water resilience in Farm Plans; and
- (c) <u>supporting primary sector groups and landowners in researching and promoting</u> climate resilient land uses and pathways to move to new land uses.

Explanation

<u>Policy FW.8 promotes and supports climate change adaption in land use practices and change.</u>

Energy, waste and industry

Policy 2: Reducing adverse effects of the discharge of odour, smoke, dust and fine particulate matter, <u>and reducing greenhouse gas emissions</u> – regional plans

Regional plans shall include policies, and/or rules and/or methods that:

- (a) protect or enhance the *amenity values* of neighbouring areas from discharges of odour, smoke and dust; and
- (b) protect people's health from discharges of dust, smoke and fine particulate matter.; and
- (c) <u>support industry to reduce greenhouse gas emissions from industrial processes,</u> and
- (d) phase out coal as a fuel source for domestic fires and large scale generators by 2030.

Explanation

Policy 2 seeks to protect neighbouring areas and people's health from discharges of contaminants into the air. In addition, it seeks to support industry to reduce discharges of greenhouse gas emissions from industrial processes, and to phase out coal as a fuel source for domestic fires and large scale industrial boilers by 2030.

Explanation

The amenity value of air reflects how clean and fresh it is. High amenity is associated with good visibility, low levels of deposited dust and with people's ability to enjoy their outdoor environment. Amenity is reduced by contaminants in the air affecting people's wellbeing – such as when dust or smoke reduces visibility or soils surfaces, or when odour is objectionable.

Amenity values need to be considered in the context of different environments and they may change temporarily or seasonally. In effect, what constitutes an objectionable odour, or level of smoke or dust is, in part, dependant on the normal conditions experienced in a locality or at a time of year.

Protecting people's health from discharges to air includes considering the effects of *fine particulate* matter discharged from human activities. The Wairarapa (specifically Masterton), Wainuiomata and Upper Hutt are the airsheds known to be at risk of exceeding the National Environmental

Standards for Air Quality, in relation to fine particulate matter (PM10), during cold calm winter nights. Domestic fires are the main source of fine particulate emissions in these airsheds during winter.

Policy 7: Recognising the benefits from renewable energy and regionally significant infrastructure – district and regional plans

District and regional plans shall include <u>objectives</u>, policies, <u>rules</u> and <u>/or other</u> methods that <u>recognise</u>:

- (a) <u>recognise</u> the social, economic, cultural and environmental benefits of *regionally* significant infrastructure, and in particular low and zero carbon regionally significant infrastructure including:
 - (i) people and goods can travel to, from and around the region efficiently and safely and in ways that support transitioning to including by using low or zero carbon multi modal transport travel modes;
 - (ii) public health and safety is maintained through the provision of essential services: supply of potable water, the collection and transfer of sewage and stormwater, and the provision of emergency services;
 - (iii) people have access to energy, <u>and preferably low or zero carbon renewable energy, so as to meet their needs; and the series of the ser</u>
 - (iv) the provision of an efficient, effective and resilient electricity transmission network; and
 - (v) people have access to telecommunication services.
- (b) <u>recognise and provide for</u> the social, economic, cultural and environmental benefits of energy generated from renewable energy resources including:
 - (i) avoiding, reducing and displacing greenhouse gas emissions;
 - (ii) <u>contributing to the</u> security of supply, <u>resilience</u>, <u>independence</u> and diversification of our energy sources;
 - (iii) reducing dependency on imported energy resources; and
 - (iv) reducing greenhouse gas emissions. using renewable resources rather than finite resources; and
 - (v) the reversibility of the adverse effects on the environment of some renewable electricity generation technologies.

(c) recognise the potential benefits of regionally significant infrastructure to support reductions in greenhouse gas emissions; and

(d) protect regionally significant infrastructure from incompatible subdivision, use and development occurring under, over, or adjacent to the infrastructure.

Explanation

Notwithstanding that renewable energy generation and regionally significant infrastructure can have adverse effects on the surrounding environment and community, Policy 7 recognises that renewable energy generation and regionally significant infrastructure these activities can provide a range of local, regional and national benefits both within and outside the region, including helping to reduce greenhouse gas emissions and provide essential services for the well-being of people and communities in particular if regionally significant infrastructure is a low or zero carbon development.

Energy generated from renewable energy resources and regionally significant infrastructure can provide benefits both within and outside the region. Renewable energy benefits are not only generated by large scale renewable energy projects but also smaller scale projects.

Renewable energy means energy produced from solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources.

Renewable energy generation and regionally significant infrastructure can also have adverse effects on the surrounding environment and community. These competing considerations need to be weighed on a case by case basis to determine what is appropriate in the circumstances.

Imported and non-renewable energy sources include oil, gas, natural gas and coal.

When considering the benefits from renewable energy generation the contribution towards national goals in the New Zealand Energy Strategy (2007) and the National Energy Efficiency and Conservation Strategy (2007) will also need to be given regard.

Regionally significant infrastructure is defined in Appendix 3.

Policy 39: Recognising the benefits from renewable energy and regionally significant infrastructure – consideration

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

- (a) <u>recognise and provide</u> for the social, economic, cultural, and environmental benefits of energy generated from renewable energy resources; and
- (b) recognise the social, economic, cultural, and environmental benefits of other and/or regionally significant infrastructure, in particular including where it contributes to reducing greenhouse gas emissions; and
- (c) protecting regionally significant infrastructure from incompatible subdivision, use and development occurring under, over, or adjacent to the infrastructure; and
- (d) recognise and provide for the operational needs and functional the needs of for renewable electricity generation activities to be in particular locations, including the need facilities to locate where the renewable energy resources exist; and
- (e) <u>recognise the benefits of utilising the</u> significant wind, <u>solar</u> and marine renewable energy resources within the region.

Explanation

Notwithstanding that renewable energy generation and regionally significant infrastructure can have adverse effects on the surrounding environment and community, Policy 39 recognises that renewable energy generation and regionally significant infrastructure these activities can provide a range of environmental, economic, social and cultural benefits both within and outside the region, particularly to contribute to reducing greenhouse gas emissions as sought by Objective CC.3. These benefits are outlined in Policy 7.

The benefits of energy generated from renewable energy resources include:

- Security of and the diversification of our energy sources
- Reducing our dependency on imported energy resources such as oil, natural gas and coal

- Reducing greenhouse gas emissions
- Contribution to the national renewable energy target

The benefits are not only generated by large scale renewable energy projects but also smaller scale, distributed generation projects.

The benefits of regionally significant infrastructure include:

- People and goods can efficiently and safely move around the region, and to and from
- Public health and safety is maintained through the provision of essential services such as potable water and the collection and transfer of sewage or stormwater
- People have access to energy to meet their needs
- People have access to telecommunication services

Energy generation from renewable energy and regionally significant infrastructure (as defined in Appendix 3) can provide benefits both within and outside the region.

Renewable energy generation and regionally significant infrastructure can also have adverse effects on the surrounding environment and community. These competing considerations need to be weighed on a case by case basis to determine what is appropriate in the circumstances.

When considering the benefits from renewable energy generation, the contribution towards national goals in the New Zealand Energy Strategy (2007) and the National Energy Efficiency and Conservation Strategy (2007) will also need to be given regard.

Potential significant sites for development of Wellington region's marine and wind resources have been identified in reports 'Marine Energy - Development of Marine Energy in New Zealand with particular reference to the Greater Wellington Region Case Study by Power Projects Ltd, June 2008' and 'Wind Energy - Estimation of Wind Speed in the Greater Wellington Region, NIWA, January 2008'.

Policy 39(a) shall cease to have effect once policy 9 is given effect in a relevant district or regional plan.

Policy 39(b) shall cease to have effect once policy 8 is given effect in a relevant district or regional plan.

Policy 65: Supporting and encouraging Promoting efficient use and conservation of resources – non-regulatory



To promote sSupport and encourage conservation and efficient use of resources by encouraging:

- (a) applying the 5 Rs (Reduceing, Reuseing, Recycleing, Recover, recycling and Residual waste management);
- reducing *organic waste* at source from households and commercial premises; (b)
- (c) increasing the diversion of wastewater sludge from wastewater treatment plants before deposition to municipal landfills;
- requiring efficient municipal landfill gas systems; (d)
- (e) using energy used from renewable sources;
- using water and energy efficiently; and (bf)
- (eg) conserving water and energy.

Explanation

<u>Policy 65 supports and encourages promotes</u> the efficient use of resources to reduce <u>emissions</u>. The policy endorses the waste hierarchy and also promotes similar principles for efficient water and energy use.

For waste, using resources efficiently means following the waste hierarchy: reducing unnecessary use of resources, including reducing packaging; reusing unwanted goods that are still 'fit for purpose'; recycling new products from waste materials; and recovering resources (such as energy) from waste before disposing of the remaining waste safely. If resources are used efficiently, the amount of unwanted materials disposed of at landfills and at sewage treatment plants will be reduced.

Similar principles apply for reducing energy demand and conserving energy. This includes minimising the use of energy, reducing the need to use or being more efficient in use.

Some of the ways to efficiently use or conserve water include reducing water demand and wastage by:

- Setting targets for reducing leakage from reticulated water supplies within each district
- Providing information to water suppliers and water users on how to conserve water and use it as efficiently as possible
- Providing information about long-term rainfall and drought predictions
- Investigating the use of transferable water permits

Leaks from water reticulation systems can waste over 15 per cent of treated water. Water supply authorities already have programmes for repair and maintenance, and it is vital that targets are set so that development of such programmes continues and water wastage is reduced.

Water efficient household appliances and garden watering tied to garden needs, along with fixing dripping taps and planting locally appropriate plants, are some of the ways that people could make the water delivered to their house go further. Greywater irrigation and recycling, and the use of rainwater tanks, are ways that households can make more efficient use of water.

Weather predictions can help people prepare for possible weather extremes, for example by buying in stock feed or ensuring water reserves are at full capacity. Transferring water permits, or parts of water permits, allows allocated water to be used by as many people as the resource can sustain.

Natural Hazards

Objective 20

Natural hazard and climate change mitigation and adaptation activities minimise the risks from natural hazards and impacts on do not exacerbate natural hazard risk elsewhere, including in respect of Te Mana o te Wai, Te Rito o te Harakeke, natural processes, indigenous ecosystems and biodiversity.

Objective 21

Communities are more resilient to natural hazards, including the impacts of climate change, and people are better prepared for the consequences of natural hazard events.

Methods

Add new Climate Change Method:

By December 2024, Greater Wellington Regional Council shall identify and map highly erodible land to help give effect to Policies CC.6 and CC.18.

Definitions:

Whole-of-life Carbon emissions assessment

An evaluation of the carbon footprint which measures the total volume of *greenhouse* gases emitted at different stages of a project lifecycle.

An evaluation of the total greenhouse gas emissions of a proposal measured in carbon dioxide equivalent units, derived from assessing the emissions associated with all stages of the project's life.

Climate change adaptation



In human systems, the process of adjusting to actual or expected climate and its effects, in order to moderate harm or take advantage of beneficial opportunities. In natural systems, the process of adjusting to actual climate and its effects. Human intervention may help these systems to adjust to expected climate and its effects.

Climate change mitigation



Human actions to reduce *emissions* by sources or enhance removals by sinks of greenhouse gases. Examples of reducing *emissions* by sources include walking instead of driving, or replacing a coal boiler with a renewable electric-powered one. Examples of enhancing removals by sinks include growing new trees to absorb carbon, promoting and providing for active transport, and increasing public transport services and affordability.

Nature-based solutions



Actions to protect, enhance, or restore natural ecosystems, and the incorporation of natural elements into built environments, to reduce greenhouse gas emissions and/or strengthen the resilience of humans, indigenous biodiversity and the natural environment to the effects of climate change.

Means the use or management of natural resources in a way that contribute to a reduction in greenhouse gas emissions and/or an increase in resilience to the effects of climate change.

Examples include:

Reducing greenhouse gas emissions (climate change mitigation):

- planting forests to sequester carbon
- protecting peatland to retain carbon stores

Increasing resilience (climate change adaptation):

(a) providing resilience for people

- planting street trees to provide relief from high temperatures
- restoring coastal dunelands to provide increased resilience to the damaging effects of storms linked to sea level rise
- <u>leaving space for rivers to undertake their natural movement and accommodate</u> increased floodwaters.
- the use of water sensitive urban design, such as rain gardens to reduce stormwater runoff in urban areas

(b) providing resilience for ecosystems and species

- <u>restoring indigenous forest to a healthy state to increase its resilience to increased climate extremes</u>
- <u>leaving space for estuarine ecosystems, such as salt marshes, to retreat inland in</u> response to sea level rise.

1. Travel demand management plan

A travel demand management plan sets out interventions and actions to influence travel behaviour, with the aim of minimising travel demand or redistributing demand from traditional car usage to more sustainable transport modes for new subdivision, use and development. A travel demand management plan should include mitigation measures that so that planned subdivision, use and development is designed and implemented to maximise quality of life for people without access to a private vehicle, reducing the demand for vehicle trips and associated externalities like greenhouse gas emissions. For example, a travel demand management plan for a new retail development might promote cycle parking facilities and a delivery service, as an intervention to promote travel with low carbon emissions.

New definitions:

Stormwater Management Strategy

A strategic document, required by Rule R53 of the Natural Resources Plan for the Wellington region, that links stormwater asset management and land use planning (including state highways) with water quality outcomes. A stormwater management strategy describes how sub-catchments within a stormwater network will be managed, through time, in accordance with any relevant objectives identified in the Plan.

Green infrastructure (as mandated by National Planning Standards)

Means a natural or semi-natural area, feature or process, including engineered systems that mimic natural processes, which are planned or managed to:

(a) provide for aspects of ecosystem health or resilience, such as maintaining or improving the quality of water, air or soil, and habitats to promote biodiversity; and

(b) provide services to people and communities, such as stormwater or flood management or climate change adaptation

Climate-resilient/climate-resilience/resilience/resilient:

(In relation to climate change or natural hazards) Means the region is able to respond, at any one time, to predicted changes to climate and associated effects on the severity/frequency of natural hazards³⁷ in a way that maintains the function and structure of the region.

For the purposes of this definition, responds includes the ability to prepare for, recover from and adapt to climate change impacts.

High trip generating activity

Any activity that exceeds a specified threshold set in a district plan for trip generation or vehicle movements and which requires a transport assessment to be provided with a resource consent application for the activity.

Freight depot

A facility used for receiving, despatching or consolidating goods in transit by road, rail, air or sea. It includes carriers' depots.

Optimise transport demand

means undertaking actions that, in order of priority:

- (a) Influence transport demand spatially and reduce trip length; then
- (b) Create choices to travel via sustainable modes and support reductions in reduce emissions; then
- (c) Design and deliver subdivision, use and development in a way that supports use of sustainable transport modes and an efficient transport network.

³⁷ As defined by the RMA