

Hearing Stream Three: Climate Change provisions

CLEAN VERSION FOR HEARINGS PANEL ONLY

N.B. The provisions in this document are for information purposes only, showing the provisions as recommended by the reporting officers at the point of Right of Reply, as requested by the Independent Hearings Panel. This document should be read alongside the tracked change version which shows all changes at each stage of the hearings process.

4.1A Climate Change

As of 2022, 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.

Predictions are for significant climate change impacts in the Wellington Region¹ by 2090 if global *greenhouse gas 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:

- 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.

There is still an opportunity to limit warming to 1.5 °C if global net anthropogenic CO₂ emissions are reduced by 48 percent from 2019 levels by 2030 and a 99 percent reduction in CO₂ emissions is achieved by 2050 (these are median values). When all greenhouse gases are considered, global net emissions expressed as CO₂e must reduce by between 73 and 98 percent by 2050 to give a 50% chance of limiting warming to 1.5 °C with low or no overshoot.

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

¹ NIWA, 2017: Climate change and variability – Wellington Region

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.²

While this will require bold and decisive action, there is a need to act carefully, recognising that the costs and benefits 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 *mana whenua/tangata whenua*, 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 *greenhouse gas 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 limiting global cooling in the near-term.
2. Increase greenhouse gas sinks through carbon sequestration, while recognising that, due to the limitations of this approach, the focus must be on reducing gross *greenhouse gas emissions*.
3. Take adaptation action to increase the resilience of our communities, and 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 role of the resource management system in the climate change response

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

The resource management system plays a key role in helping to reduce *greenhouse gas emissions*. This section of the Regional Policy Statement sets out issues, objectives, policies and methods to help achieve a significant reduction in *greenhouse gas emissions* and improve the resilience of the Wellington Region to the effects of climate change. It is intended to complement the Climate Change Response Act 2002 and the range of actions and initiatives in Aotearoa New Zealand's Emission Reductions Plan and National Adaptation Plan prepared under that Act. This recognises that the achievement of *greenhouse gas emission* reduction targets, including those in Objective CC.3 of this statement, requires a range of actions, initiatives and financing tools that sit both within and outside of the resource management system.

² New Zealand Climate Change Commission, 2021: *Ināia tonu nei: a low emissions future for Aotearoa*

Note that for the avoidance of doubt:

- Objective CC.3 seeks to ensure that the management, use and protection of natural and physical resources in the Wellington Region contributes to the 2030 and 2050 regional *greenhouse gas emission* targets – it is not a limit nor intended as an allocation regime between different sectors.
- The climate change objectives, policies and methods in this Chapter do not apply to *greenhouse gas emissions* from aircraft.

Regionally significant climate change issues

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). Development of the renewable energy resources in the Region will be necessary to assist the transition from fossil fuel dependency and achieve the significant reductions in *greenhouse gas emissions* needed from these sources.

2. Climate change and the decline of ecosystem health and biodiversity are 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/tangata whenua to exercise their way of being in Te Ao Tūroa, the natural world.

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

The hazard exposure of our communities, land, mana whenua/tangata whenua sites, wāhi tapu, infrastructure, food security (including mahinga kai), and water security is increasing because of climate change impacts on a range of natural hazards.

Conventional approaches to development tend not to have fully considered the impacts on natural systems and hard engineered protection works that have not been designed to withstand the impacts of climate change are likely to become compromised and uneconomic to sustain, which can 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 mana whenua/tangata whenua. 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.

5. Climate change threatens tangible and spiritual components of mana whenua/tangata whenua well-being

Climate change threatens both the tangible and spiritual components of mana whenua/tangata whenua 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 mana whenua/tangata whenua, such as marae, wāhi tapu and urupā, are particularly vulnerable as they are frequently located alongside the coast and waterbodies.

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

Many people and businesses lack the understanding, resources and funding, ability or support to make the changes needed to transition to a low-emissions and climate-resilient future. It can be challenging for people and businesses to make the connection between their actions, *greenhouse gas emissions* and climate change and the ways that climate change will impact their lives. Social inertia and competing interests are some of the biggest issues to overcome to address climate change.

Objective CC.1

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 areas and rural areas, and
- (c) the planning and delivery of infrastructure.

Objective CC.2

The costs and benefits of transitioning to a low-emission and climate-resilient region are equitable between sectors and communities.

Objective CC.3

To support the global goal of limiting warming to 1.5 degrees Celsius and New Zealand's *greenhouse gas emissions* reduction targets, net *greenhouse gas emissions* in the Wellington Region are reduced:

- (a) to contribute to a 50 percent reduction in net *greenhouse gas emissions* from 2019 levels by 2030, and

(b) to contribute to achieving net-zero *greenhouse gas emissions* by 2050.

Objective CC.4:

Nature-based solutions are an integral part of *climate change mitigation* and *climate change adaptation*, improving the health, well-being and resilience of people and communities, indigenous biodiversity, and natural and physical resources.

Objective CC.5:

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

Objective CC.6

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

Objective CC.7

People and businesses understand the current and predicted future effects of climate change, how these may impact them, how to respond to the challenges of climate change, and are actively involved in appropriate mitigation and adaptation responses.

Objective CC.8

Mana whenua/tangata whenua are empowered to achieve climate-resilience in their communities.

4.3: Energy, infrastructure and waste

Delete the eighth paragraph of the chapter introduction:

~~The New Zealand Energy Strategy (2007), the New Zealand Energy Efficiency and Conservation Strategy (2007) and the New Zealand Transport Strategy (2008) outline New Zealand's actions on energy and climate change. The objectives, policies and methods on energy in this Regional Policy Statement will assist with making progress towards national targets. There are, however, a number of targets — such as reducing carbon dioxide equivalent emissions from transport — where the Regional Policy Statement has limited influence.~~

4.8 Natural Hazards

A natural hazard is defined in the Resource Management Act as any atmospheric, earth or water related occurrence (including earthquake, tsunami, erosion, volcanic, and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) which may adversely affect human life, property, or other aspects of the environment. On their own, natural processes do not constitute a hazard. Natural events become hazardous when they may adversely affect human lives.

Regional, city and district councils all have responsibilities under the Resource Management Act to manage the significant risks from these natural hazards as a matter of national importance. Additionally, particular regard must be given to the effects of climate change when achieving the sustainable management purpose of the Act.

The Wellington Region has one of the most physically diverse environments in New Zealand. It is also one of the most populous regions and, consequently, our communities and the areas that we value are affected by a wide range of natural hazards. The hazard exposure of people and communities, the natural environment, businesses and the economy, food production (including mahinga kai), water security, property and infrastructure is increasing because of climate change. The impacts and costs of responding to natural hazards and climate change is not felt equitably. Some communities have no, or only limited, resources to enable mitigation and adaptation and will bear a greater burden than others.

With the exception of geothermal activity, the region is subject to all types of natural hazard events. Commonly, there are two or more hazards associated with a given event. For example, a rainstorm may cause flooding and landslips.

The three most potentially damaging and costly natural hazards events that can occur in the region are:

- Earthquake: High magnitude earthquake (7.0+) from the rupture of a local fault (especially the Wellington Fault) affecting Te Whanganui-a-Tara/Wellington city, Te Awa Kairangi/Hutt valley, Porirua, Kāpiti Coast and towns in the Wairarapa.

- Flooding: Major river flooding in the Hutt valley, Kāpiti Coast and the central Wairarapa plains. Flooding is the most frequently occurring hazard event in the region.
- Tsunami: Large tsunami (particularly one that is locally generated) affecting low-lying areas around Te Whanganui-a-Tara/Wellington Harbour and the southern bays, settlements along the southern and eastern Wairarapa coast, Te Awarua-o-Porirua Harbour and the Kāpiti Coast.

Other natural hazards have more localised impacts but occur more frequently. These include:

- Localised flooding and inundation from streams and stormwater overflow. This can occur throughout the region in low-lying areas – such as Porirua – around tributary streams of the larger rivers – such as Te Awa Kairangi/Hutt River – and in areas that have short steep catchments – such as Paekākāriki.
- Coastal erosion and inundation, often associated with storm surge, affects some seafront and low-lying coastal developments in the region. Some sections of the coastline are in long term retreat – such as Paekākāriki and Te Kopi. Other areas have episodes of erosion that form part of a cycle of erosion and deposition – such as Paraparaumu or Riversdale. Due to climate change induced sea level rise, it is expected that the areas impacted by coastal erosion and inundation will increase with time, and that this hazard will occur on a more frequent basis.
- Landslips in the hill suburbs of Te Whanganui-a-Tara/Wellington city, Te Awa Kairangi/Hutt valley, Eastbourne, Wainuiomata, Porirua, Paekākāriki and in the Wairarapa hill country.
- Drought, especially in central Wairarapa and the coastal hills between Flat Point and Castlepoint.
- Wildfire, particularly in hill suburbs on urban fringes near heavily vegetated slopes, including western and southern Te Whanganui-a-Tara/Wellington suburbs, Eastbourne, Wainuiomata, Te Awa Kairangi/Hutt valley and Porirua, and farmland in the eastern Wairarapa hill country.
- High winds that can occur throughout the region and cause widespread damage to buildings, infrastructure and forestry.
- Sedimentation and erosion of rivers and streams, river mouths and tidal inlets, that can exacerbate the flood risk by raising *bed* levels and undermining banks.

People's actions, including mitigation measures and ongoing development in areas at high risk from natural hazards, can cause or increase the risk from natural hazards. Examples include seawalls or groynes that can cause localised erosion of the adjacent shoreline and building on landslip prone slopes. Stopbanks and seawalls can also create a sense of security and encourage further development, increasing the extent and value of the assets at risk.

In the medium to long term, climate change effects will increase both the frequency and magnitude of natural hazard events that already occur in the region.

A major consequence of climate change is sea level rise. Based on the Intergovernmental Panel on Climate Change 6th assessment report, and measurements of vertical land movement, NZ SeaRise - Te Tai Pari O Aotearoa projects relative sea level in the Wellington Region to rise between 0.8 – 1.3 m by 2100 but, 2.0 m of sea level rise by the end of the century cannot be ruled out.³

Climate change will increase the frequency and magnitude natural hazards that already occur in the region and exacerbate the impacts and consequences from these events. For example, 30 cm of sea level rise on top of what has already occurred over the past 120 years, will mean that a 1 percent AEP (1:100 yr) coastal flooding event has the potential to occur every one to two years.

The main natural hazards associated with a rise in sea levels are coastal erosion and inundation. Sea level rise will also put increasing pressure on the coastal margin. As the shoreline adjusts, sediment will be redistributed around the coast and may cause shorelines to form new orientations. Beaches that are currently stable may begin to erode as the shoreline adjusts to a higher water level, while those that are currently eroding may experience an increased rate of retreat.

Climate change will increase the intensity and duration of westerly weather systems and reduce easterly conditions. This will exacerbate differences in the regional climate, by bringing higher rainfall to the west and reducing coastal rains in the east. It will also bring longer periods of northerly gales to the entire region, particularly in the spring months. Western and southern areas of the region may also have higher rainfall in the winter, increasing the landslide risk during wet winters, particularly in extreme rainfall events. This will put pressure on stormwater systems and flood protection works. Higher rainfall may also result in higher rates of sedimentation at river mouths and in estuaries, increasing the flood risk in those areas by raising the base level of the river *bed*.

It is also expected that central and eastern Wairarapa will become drier over the next 100 years. Droughts will occur more frequently and persist for longer periods. Research suggests that winter rainfall will decline in the long term, which may lead to a reduction in groundwater recharge rates and pressure on water resources. Dry conditions also result in a heightened risk of wildfire.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for natural hazards are:

1. Risks from natural hazards

Natural hazard events in the Wellington region have an adverse impact on people and communities, the natural environment, businesses and the local economy, property and infrastructure.

³ IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 31pp.

2. Human actions can increase risk and consequences from natural hazards

People's actions, including mitigation measures and ongoing development in areas at risk from natural hazards, can cause, or increase, the risk and consequences from natural hazards.

3. Climate change will increase the likelihood and consequences from natural hazard events

Climate change will increase the likelihood and consequences from most natural hazard events that already occur within the region, particularly:

- (a) sea level rise, exacerbating the effects of coastal erosion and inundation, river, pluvial and stormwater flooding in low lying areas, especially during storm tide events
- (b) increased frequency and intensity of storm events, adding to the risk from floods, landslides, severe wind, storm surge, coastal erosion and inundation
- (c) increased frequency of drought, placing pressure on water resources and increasing the wildfire risk.

Objective 19

The risks to people, communities, business, property, and infrastructure from natural hazards and the effects of climate change are avoided or *minimised*.

Objective 20

Natural hazard mitigation measures and *climate change adaptation* activities *minimise* the risks from natural hazards, and impacts on, *Te Mana o te Wai*, taonga species, sites of significance to mana whenua/tangata whenua, natural processes, indigenous ecosystems and biodiversity.

Objective 21

The resilience of our communities, infrastructure and the natural environment to natural hazards is improved, including to the short, medium, and long-term effects of climate change and sea level rise and people are better prepared for the consequences of natural hazard events.

4.1: Regulatory policies – direction to district and regional plans and the Regional Land Transport Plan Strategy

Policy 2: Reducing adverse effects of the discharge of odour, smoke, dust and fine particulate matter – regional plans

Regional plans shall include policies, 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.

Explanation:

Policy 2 seeks to protect neighbouring areas and people's health from discharges of contaminants into the air.

Policy CC.1: Reducing greenhouse gas emissions associated with transport demand and infrastructure – district and regional plans

District and regional plans shall include objectives, policies, rules and/or methods that *optimise transport demand* by requiring all new and altered land transport infrastructure to be designed, constructed, and operated in a way that contributes to reducing *greenhouse gas emissions* by giving effect to a hierarchical approach (in order of priority), by:

- (a) Supporting development in locations to minimise travel distances between residential, employment and the location of other essential services, in combination with the delivery of multi-modal transport networks and infrastructure to serve developments; then
- (b) Supporting development within *walkable catchments* of public transport routes where practicable, and utilising existing space to remove barriers for access to walking, cycling and public transport; then
- (c) Where providing new infrastructure or capacity upgrades on the transport network, to prioritise walking, cycling and public transport, such as improved or new bus and cycle lanes and measures to prioritise the need of pedestrians, cyclists and public transport above the car.

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* by applying a hierarchy to all new or altered transport infrastructure that supports an efficient transport network, influences travel demand through ensuring development occurs in locations that can be best served by public transport and other low and zero-carbon transport modes. The hierarchy supports behaviour change through mode shift from private vehicles to public transport or active modes. This policy does not apply to aircraft, or activities undertaken at Wellington Airport which support aircraft activities, e.g. aircraft parking stands at the Airport.

Policy CC.2: Travel choice assessment – district plans

By 30 June 2025, district plans shall include objectives, policies and rules that require subdivision, use and development to contribute to the reduction of *greenhouse gas emissions* by requiring consent applicants to provide a *travel choice assessment* that:

- a. demonstrates how the use of public transport and active modes will be maximised;
- b. demonstrates how the use of private vehicles will be minimised; and
- c. includes measures within the design of subdivision, use and development which achieves parts (a) and (b) above.

The requirement for a *travel choice assessment* must apply to all new subdivision, use and development over a specified travel choice threshold as required by Policy CC.2A.

Policy CC.2A: Travel choice assessment local thresholds – district plans

By 30 June 2025, district plans shall include local thresholds for *travel choice assessments* as required by Policy CC.2. As a minimum, city and district councils must use the regional thresholds set out in Table 1 as the basis for developing their own local thresholds. The regional thresholds in Table 1 will cease to apply when Policy CC.2A is given effect through a district plan. To contribute to reducing *greenhouse gas emissions* city and district councils must develop their own travel choice thresholds that are locally specific.

Table 1: Regional Thresholds

Activity and Threshold per application
100 residential units located within a <i>walkable catchment</i> .
Commercial development of 2,500m ² gross floor area
Greenfield subdivision over 100 residential units

Explanation

The regional travel choice thresholds have been developed as a minimum and as guidance to assist city and district councils in developing their local travel choice thresholds. Local travel choice thresholds are important to reflect the differences in connectivity and accessibility between rural and urban areas. In addition, local travel choice thresholds should reflect local issues, challenges and opportunities. Local travel choice thresholds should apply to residential, education, office, industrial, community, entertainment and other land use activities that could generate private vehicle trips and freight travel. Development thresholds should specify the trigger level (for example, number of dwellings, number of people accommodated or gross floor area) where the requirement for a *travel choice assessment* applies.

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

By 30 June 2025, district plans shall include objectives, policies, rules and methods for enabling infrastructure that supports the uptake of zero and low-carbon multi modal transport that contribute to reducing *greenhouse gas emissions*.

Explanation

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, footpaths, walkways and public EV charging network for EV modes of transport.

Policy CC.4: Climate-responsive development – district plans

District plans shall include objectives, policies, rules and non-regulatory methods to require development and infrastructure to be located, designed, and constructed in

ways that provide for *climate change mitigation*, *climate change adaptation* and *climate-resilience*, prioritising the use of *nature-based solutions* and informed by mātauranga Māori. This includes, as appropriate to the scale and context of the activity:

(a) requiring provision of urban green space, particularly canopy trees, to reduce urban heat and reduce stormwater flowrates:

- i. prioritising the use of appropriate indigenous species, and
- ii. contributing to achieving a wider target of 10 percent tree canopy cover at a suburb-scale by 2030, and 30 percent cover by 2050,

(b) requiring methods to increase water resilience, including harvesting of water at a domestic and/or community-scale for non-potable uses (for example by requiring rain tanks, rainwater reuse tanks, and setting targets for urban roof area rainwater collection),

(c) requiring that significant adverse effects on the *climate change mitigation*, *climate change adaptation* and *climate-resilience* functions and values of an ecosystem shall be avoided, and other adverse effects on these functions and values shall be avoided, minimised, or remedied,

(d) promoting efficient use of water and energy in buildings and infrastructure, and

(e) promoting appropriate design of buildings and infrastructure so they are able to withstand the predicted future higher temperatures, intensity and duration of rainfall and wind over their anticipated life span.

Explanation

Policy CC.4 directs district plans to include provisions to provide for development and infrastructure to respond to the predicted effects of climate change. The policy seeks that priority be given to the use of nature-based solutions, recognising the multiple-benefits they can provide for people and nature. It also seeks to manage any adverse effects of activities on the climate change functions and values of ecosystems.

It is noted that other policies of this RPS also provide for actions and initiatives to deliver *climate-resilient* infrastructure and development. This includes requirements to apply *water sensitive urban design principles* and *hydrological control in urban development* in Policy 14, Policy FW.3, and Policy FW.XX (Hydrological control in urban development).

Policy CC.4A: Climate-responsive development – regional plans

Regional plans shall include objectives, policies, rules and non-regulatory methods to require development and infrastructure to be located, designed, and constructed in ways that provide for *climate change mitigation*, *climate change adaptation* and *climate-resilience*, prioritising the use of nature-based solutions and informed by

mātauranga Māori. This includes, as appropriate to the scale and context of the activity:

(a) requiring significant adverse effects on the climate change mitigation, climate change adaptation and climate-resilience functions and values of an ecosystem be avoided, and other adverse effects on these functions and values be avoided, minimised, or remedied.

Explanation

Policy CC.4A directs regional plans to include provisions to provide for *climate-resilient* development and infrastructure. The policy seeks that priority be given to the use of *nature-based solutions*, recognising the multiple-benefits they can provide for people and nature. It also seeks to manage any adverse effects of activities on the climate change functions and values of ecosystems.

It is noted that other policies of this RPS also provide for actions and initiatives to deliver *climate-resilient* infrastructure and development, including requirements to apply *water sensitive urban design principles* and *hydrological control* in Policy 14, Policy FW.3 and Policy FW.XX.

Policy CC.5: Reducing agricultural *greenhouse gas emissions*⁹ – regional plans

Regional plans shall include objectives, policies, and methods to support reductions in agricultural *greenhouse gas emissions* from 2019 levels to contribute to the Objective CC.3 2050 net-zero emissions target.

Explanation:

As agriculture is the second largest emitter of greenhouse gases in the Wellington Region, contributing 34 percent of the region's *greenhouse gas emissions*, reducing emissions from the agricultural sector is critical to contribute to achieving Objective CC.3. While central government is taking the lead on the policy approach to reduce agricultural *greenhouse gas emissions*, Policy CC.5 seeks to complement this by directing regional plans to include provisions to support reductions in agricultural emissions. This will be supported by non-regulatory Policy CC.15 and Method CC.8 that seek to support change and improved management practices at a farm level to reduce *greenhouse gas emissions*.

As of 30 November 2022, regional councils are able to control the discharge of greenhouse gases having regard to the effects on climate change. This policy is intended to provide flexibility as to how agricultural *greenhouse gas emissions* are reduced through a future regional plan change process which will need to consider issues such as equity and the relationship with the national approach for agricultural *greenhouse gas emissions* to ensure that these are complementary.

Policy CC.6: Increasing regional forest cover and avoiding plantation forestry on highly erodible land – regional plans

Regional plans shall include objectives, policies, rules and/or non-regulatory methods that support an increase in the area and health of permanent forest in the region, maximising the benefits for carbon sequestration, indigenous biodiversity, land stability, water quality, and social, cultural and economic well-being, while:

- a. promoting and incentivising the planting or regeneration of permanent indigenous forest representative of the natural type expected in the area over exotic species, particularly on highly erodible land and in catchments where water quality targets for sediment are not reached,
- b. avoiding plantation forestry on *highly erodible land*, particularly in catchments where water quality targets for sediment are not reached, and
- c. promoting and supporting the control of browsing pest animals in priority areas.

Explanation

This policy recognises that, while there is a need for increased forest extent across the Wellington Region to help achieve net zero emissions by 2050, offsetting through carbon sequestration is only a short-term solution and that there are significant risks associated with unfettered afforestation across the region. The policy directs regional plans to develop provisions that will support “right tree-right place”, seeking to ensure that an increase in forest extent for its sequestration benefits will be implemented in a way that maximises the co-benefits for indigenous biodiversity and aquatic ecosystem health, and provide for social and economic wellbeing as directed by Objective CC.5.

Clause (a) recognises the significant values of indigenous forest, along with the need for incentives to support their planting and natural regeneration.

Clause (b) responds to the high risk of harvesting forest in areas that are highly erodible and in catchments where waterways already have high sediment loads. The National Environmental Standards for Plantation Forestry enables regional plans to regulate plantation forestry for the purpose of protecting freshwater quality. Clause (c) recognises the importance of controlling browsing pest animals to ensure that forests are healthy and can therefore provide maximum benefits.

Policy CC.8: Prioritising the reduction of *greenhouse gas emissions* – district and regional plans

When giving effect to the climate change objectives and policies in the RPS, district and regional plans shall, where relevant, prioritise reducing *greenhouse gas emissions* by applying the following hierarchy in order:

- a. in the first instance, *gross greenhouse gas emissions* are avoided or reduced where practicable; and
- b. where *gross greenhouse gas emissions* cannot be avoided or reduced, a net reduction in *greenhouse gas emissions* is achieved where practicable, with any offsetting undertaken as close to the source of the *greenhouse gas emissions* as possible; and
- c. increases in net *greenhouse gas emissions* are avoided to the extent practicable.

Explanation

This policy recognises the importance of reducing *gross greenhouse gas emissions* as the first priority, then reducing net *greenhouse gas emissions*, then avoiding increases in net *greenhouse gas emissions* to the extent practicable. Relying heavily on net-emissions

through 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.

The intent is that Wellington Regional Council will work with city and district councils to provide co-ordination and guidance as to how to implement this policy direction. The intent is to ensure regional and district plan provisions to reduce *greenhouse gas emissions* from key emitting sectors in the region support this hierarchy approach to reducing emissions where relevant and appropriate, are co-ordinated and also complement national policy and initiatives. This work will recognise the respective RMA functions of the Wellington Regional Council and city and district councils in relation to controlling *greenhouse gas emissions* from air discharges and land-use activities and the limited role of district plans in reducing *greenhouse gas emissions* from existing activities except at the time of redevelopment. This work will consider issues such as scale, equity, and the type of activities to which offsetting should apply.

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

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

- (a) recognise the social, economic, cultural and environmental benefits of *regionally significant infrastructure*, including:
 - (i) people and goods can travel to, from and around the region efficiently and safely and in ways that support the transition to low or zero carbon multi modal transport 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, and preferably renewable energy, so as to meet their needs;
 - (iv) people have access to telecommunication services.
- (b) recognise and provide for the social, economic, cultural and environmental benefits of energy generated from renewable energy resources and its transmission through the electricity transmission network, including:
 - i. avoiding, reducing and displacing *greenhouse gas emissions*;
 - ii. contributing to the security of supply, resilience, independence and diversification of energy sources and the transmission of this energy to communities, homes and businesses;
 - iii. reducing dependency on imported energy resources;
 - iv. using renewable resources rather than finite resources;
 - v. the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;
 - vi. providing for the economic, social and cultural well-being of people and communities.
- (c) recognise the benefits of *regionally significant infrastructure* to support reductions in *greenhouse gas emissions*.

Explanation

Policy 7 recognises that renewable energy generation and regionally significant infrastructure can provide a range of local, regional and national benefits, including helping to reduce *greenhouse gas emissions* and provide essential services for the well-being of people and communities.

Policy 9: Promoting greenhouse gas emission reduction and uptake of low emission fuels – Regional Land Transport Plan

The Wellington Regional Land Transport Plan shall include objectives and policies that promote:

- (a) a reduction of the consumption of non-renewable transport fuels; and
- (b) a reduction of the emission of *greenhouse gases*, and other transport-generated harmful *emissions*, such as nitrogen dioxide; and
- (c) an increase in the uptake of low emission or zero carbon fuels, biofuels and new technologies; and
- (d) the decarbonisation of the public transport vehicle fleet.

Explanation

This policy provides direction to the Regional Land Transport Plan, acknowledging the role of the objectives and policies in that plan, in promoting a reduction in *greenhouse gas emissions* to decarbonise the transport system, promotes the uptake of low emission or zero carbon fuels and new technologies. Regionally, in 2019, transport was the biggest source of *greenhouse gas emissions*. Transport emissions accounted for 39 percent of total gross emissions. This policy does not apply to aircraft, or activities undertaken at Wellington Airport which support aircraft activities, e.g. aircraft parking stands at the airport.

Policy 11: Promoting and enabling energy efficient design and small and community scale renewable energy generation – district plans

District plans shall include policies and/or rules and other methods that:

- (a) promote and enable energy efficient design and energy efficient alterations to existing buildings;
- (b) enable the development, operation, maintenance and upgrading of small and community scale renewable energy generation.

Explanation

Policy 11 promotes energy efficient design, energy efficient alterations to existing buildings, and enables the development of small and community scale renewable energy generation.

Energy efficient design and alteration to existing buildings can reduce total energy costs (i.e., heating) and reliance on non-renewable energy supply.

Small and community-scale renewable energy generation provides a range of benefits, including increasing local security of supply, energy and community resilience, and providing for the well-being of people and communities. Small and community-scale

renewable energy generation also plays an important role in reducing *greenhouse gas emissions* and meeting national and regional emission reduction targets.

Policy EIW.1: Promoting affordable high quality active mode and public transport services – Regional Land Transport Plan

The Wellington Regional Land Transport Plan shall include objectives, policies and methods that promote equitable and accessible high quality active mode infrastructure, and affordable public transport services with sufficient frequency and connectedness, including between modes, to encourage a reduction in the dependency and use of private vehicles for everyday living.

Explanation

This policy provides direction to the Regional Land Transport Plan, acknowledging the role of the objectives and policies in that plan, to promote mode shift from private vehicles to public transport and active modes by providing connected, accessible, affordable and extensive multi modal infrastructure and services.

Policy 29: Managing subdivision, use and development in areas at risk from natural hazards – district and regional plans

Regional and district plans shall manage subdivision, use and development in areas at risk from natural hazards as follows:

- (a) identify areas affected by natural hazards; and
- (b) use a risk-based approach to assess the consequences to new or existing subdivision, use and development from natural hazard and climate change impacts over at least a 100 year planning horizon which identifies the hazards as being low, medium or high;
- (c) include hazard overlays, objectives, polices and rules to manage new and existing subdivision, use and development in those areas where the hazards or risks are assessed as low to medium; and
- (d) include hazard overlays, objectives, polices and rules to avoid new and manage existing subdivision, use and development and *hazard sensitive activities* where the hazards and risks are assessed as high, unless there is a functional or operational need to be located in these areas.

Explanation

Policy 29 establishes a framework to:

1. identify natural hazards that may affect the region or district; and then
2. apply a risk-based approach for assessing the potential consequences to new or existing subdivision, use and development in those areas; and then
3. develop provisions to manage subdivision, use and development in those areas.

The factors listed in Policies 51 and 52 should be considered when implementing Policy 29 and when writing policies and rules to manage subdivision, use and development in areas identified as being affected by natural hazards.

Guidance documents that can be used to assist in incorporating a risk-based approach to hazard risk management and planning include:

- Risk Tolerance Methodology: A risk tolerance methodology for central, regional, and local government agencies who manage natural hazard risks. Toka Tū Ake | EQC (2023);
- Planning for natural hazards in the Wellington region under the National Policy Statement on Urban Development, GNS Science Misc. Series 140 (2020);
- NZCPS guidance note: Coastal Hazards, Department of Conservation (2017);
- Coastal Hazards and Climate Change: Guidance for Local Government, Ministry for the Environment (2017);
- Risk Based Approach to Natural Hazards under the RMA, Prepared for MfE by Tonkin & Taylor (2016);
- Planning for Risk: Incorporating risk-based land use planning into a district plan, GNS Science (2013);
- Preparing for future flooding: a guide for local government in New Zealand, MfE (2010);
- Guidelines for assessing planning policy and consent requirements for landslide prone land, GNS Science (2008);
- Planning for development of land on or close to active faults, Ministry for the Environment (2003) and;
- Other regional documents and strategies relating to the management of natural hazards.

Chapter 4.2: Regulatory policies – matters to be considered

Policy CC.9: Reducing greenhouse gas emissions associated with subdivision, use or development – consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a regional or district plan, particular regard shall be given to whether the subdivision, use or development has been planned in a way that contributes to reducing *greenhouse gas emissions* by optimising overall transport demand by giving effect to its hierarchical approach, maximising mode shift from private vehicles to public transport or active modes, and supporting the move towards low and zero-carbon modes.

Explanation

This policy requires regional and district councils to consider whether subdivision, use and development proposals have fully considered all options to reduce *greenhouse gas emissions* as far as practicable. For example, EV charging infrastructure, car share infrastructure, provision for bus stops and a transport network designed to support public transport or active modes. This policy does not apply to aircraft, or activities undertaken at Wellington Airport which support aircraft activities. e.g. aircraft parking stands at the airport.

Policy CC.10: Freight movement efficiency and minimising greenhouse gas emissions – consideration

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.

Explanation

This policy requires decisions for freight land use or servicing to consider transport efficiency to contribute to minimising greenhouse gas emissions. This policy does not apply to aircraft, or activities undertaken at Wellington Airport which support aircraft activities. e.g. aircraft parking stands at the airport.

Policy CC.11: Encouraging *whole of life emissions assessment* for transport infrastructure – consideration

Encourage *whole of life carbon emissions assessments* to be provided with resource consent applications to Wellington Regional Council and city and district councils for all new or upgraded land transport infrastructure. 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.

Explanation

This policy encourages a *whole of life carbon emissions assessment* for new or upgraded land 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. This policy does not apply to aircraft or activities undertaken at Wellington Airport which support aircraft activities. e.g. aircraft parking stands at the airport.

Policy CC.14: Climate-responsive development – district and city council consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district plan, require that development and infrastructure is located, designed and constructed in ways that provide for *climate change mitigation*, *climate change adaptation* and *climate-resilience*, prioritising the use of *nature-based solutions* and informed by mātauranga Māori. This includes, as appropriate to the scale and context of the activity:

(a) providing urban green space, particularly canopy trees, to reduce urban heat and reduce stormwater flowrates:

- i. prioritising the use of appropriate indigenous species, and
- ii. contributing to achieving a wider target of 10 percent *tree canopy cover* at a suburb-scale by 2030, and 30 percent cover by 2050,

(b) methods to increase water resilience, including by requiring harvesting of water at a domestic and/or community-scale for non-potable uses (for example by requiring rain tanks, rainwater re-use tanks, and setting targets for urban roof area rainwater collection),

(c) avoiding significant adverse effects on the climate change mitigation, climate change adaptation and climate-resilience functions and values of an ecosystem, and avoiding, minimising, or remedying other adverse effects on these functions and values,

(d) promoting efficient use of water and energy in buildings and infrastructure, and

(e) promoting appropriate design of buildings and infrastructure so they are able to withstand the predicted future higher temperatures, intensity and duration of rainfall and wind over their anticipated life span.

Explanation

Climate change, combined with population growth and housing intensification, is increasingly challenging the resilience and well-being of 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.

This policy identifies the key attributes required to ensure that development and infrastructure provide for *climate-resilience* and requires district councils to take all opportunities to provide for actions and initiatives, particularly nature-based solutions, that will prepare our communities for the changes to come. Managing stormwater runoff following intense rainfall events and contaminants from urban development also contributes to the achievement of Policy CC.14 and these matters are addressed through the requirements of Policies 40 and 42.

Policy CC.14A: Climate-responsive development – regional council consideration

When considering an application for a resource consent, or a change, variation, or review of a regional plan, require that development and infrastructure is located, designed, and constructed in ways that provide for *climate change mitigation*, *climate change adaptation* and *climate-resilience*, prioritising the use of *nature-based solutions* and informed by mātauranga Māori. This includes, as appropriate to the scale and context of the activity:

(a) avoiding significant adverse effects on the *climate change mitigation*, *climate change adaptation* and *climate-resilience* functions and values of an ecosystem and avoiding, minimising, or remedying other adverse effects on these functions and values.

Explanation

Climate change, combined with population growth and housing intensification, is increasingly challenging the resilience and well-being of 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.

This policy identifies the key attributes required to ensure that development and infrastructure provides for *climate-resilience* and requires the regional council to take all opportunities to provide for actions and initiatives, particularly nature-based solutions, that will prepare our communities for the changes to come.

It is noted that other policies of this RPS also provide regulatory requirements to apply water sensitive urban design principles and hydrological control including Policies 14, Policy FW.3, Policy FW.XX and Policy 42.

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

When considering an application for a resource consent, notice of requirement or a change, variation or review of a district or regional plan:

- (a) recognise and provide for the social, economic, cultural, and environmental benefits of energy generated from renewable energy resources and its transmission through the electricity transmission network; and
- (b) recognise the social, economic, cultural, and environmental benefits of other *regionally significant infrastructure*, including where it contributes to reducing greenhouse gas *emissions*; and
- (c) have particular regard to 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 need and functional need of renewable electricity generation activities to be in particular locations, including the need to locate where the renewable energy resources exist; and

- (e) recognise the benefits of utilising the significant wind, solar and marine renewable energy resources within the region and the development of the electricity transmission network to connect the renewable energy resource to distribution networks and end-users.

Explanation

Policy 39 recognises that renewable energy generation and *regionally significant infrastructure* can provide a range of environmental, economic, social and cultural benefits locally, regionally and nationally, including where it contributes to reducing *greenhouse gas emissions* as sought by Objective CC.3. These benefits are outlined in Policy 7.

Policy 51: Avoiding or *Minimising* the risks and consequences of natural hazards – consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review to a district or regional plan, the risk and consequences of natural hazards on people, communities, their property and infrastructure shall be avoided or *minimised*, and/or in determining whether an activity is inappropriate particular regard shall be given to:

- (a) the likelihood and consequences of the range of natural hazards that may adversely affect the subdivision, use or development, including those that may be exacerbated by climate change and sea level rise;
- (b) whether the location of the subdivision, use or development will foreseeably require hazard mitigation works in the future;
- (c) the potential for injury or loss of life, social and economic disruption and civil defence emergency management implications – such as access routes to and from the site;
- (d) whether the subdivision, use or development causes any change in the risk and consequences from natural hazards in areas beyond the application site;
- (e) *minimising* effects of the subdivision, use or development on any natural features that may act as a buffer to reduce the impacts from natural hazards;
- (f) avoiding subdivision, use or development and *hazard sensitive activities* where the hazards and risks are assessed as high, unless there is a functional or operational need to be located in these areas;
- (g) appropriate hazard risk management and/or adaptation measures for subdivision, use or development in areas where the hazards and risks are assessed as low to moderate, including an assessment of residual risk; and
- (h) the allowance for floodwater conveyancing in identified overland flow paths and stream corridors; and

- (i) the need to locate floor levels of habitable buildings and buildings used as places of employment above the 1% AEP (1:100 year) flood level, in identified flood hazard areas.

Explanation

Policy 51 aims to minimise the risk and consequences of natural hazards events through sound preparation, investigation and planning prior to development. This policy reflects a need to employ a precautionary, risk-based approach, taking into consideration the likelihood of the hazard and the vulnerability of the development.

Policy 52: Avoiding or *Minimising* adverse effects of hazard mitigation measures – consideration

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

- (a) whether *nature-based solutions*, Mātauranga Māori or *soft engineering options* provide a more appropriate solution;
- (b) avoiding hard engineering methods unless it is necessary to protect existing development, *regionally significant infrastructure* or property from unacceptable risk and the works form part of a hazard management strategy that represents the best practicable option for the future;
- (c) the long-term viability of maintaining a hard engineering approach with particular regard to how climate change may increase the risk from natural hazards over time;
- (d) adverse effects on *Te Mana o te Wai*, mahinga kai, taonga species, natural processes, and the indigenous ecosystems and biodiversity;
- (e) sites of significance to mana whenua/tangata whenua, including those identified in a planning document recognised by an iwi authority and lodged with a local authority or scheduled in a district or regional plan;
- (f) the change in natural hazard risk to nearby areas as a result of changes to natural processes from the hazard mitigation works;
- (g) the cumulative effects of isolated hard engineering works;
- (h) any residual risk remaining after mitigation works are in place, so that they *minimise* or do not increase the risks from natural hazards.

Explanation

Policy 52 recognises that the effects of *hard engineering* protection structures can have adverse effects on the environment, increase the risks from natural hazards over time and transfer the risks to nearby areas. It provides direction to consider lower impact methods of hazard mitigation such as *soft engineering*, *nature-based solutions* or Mātauranga Māori options, that may be more appropriate, providing they can suitably mitigate the hazard.

Chapter 4.4: Non-Regulatory Policies

Policy CC.7: Protecting, restoring, enhancing and sustainably managing ecosystems that provide nature-based solutions to climate change – non-regulatory

Work with and support landowners, mana whenua/tangata whenua, and other key stakeholders to protect, restore, enhance or sustainably manage ecosystems that provide *nature-based solutions* to climate change.

Explanation

Policy CC.7 recognises the value that natural ecosystems can provide as *nature-based solutions* for climate change. This policy recognises the critical importance of working with and supporting landowners and other key stakeholders to improve the health and functioning of ecosystems that provide benefits for nature and the wider community. Methods CC.6 and CC.9 will support the implementation of this policy.

Policy CC.15: Improve rural resilience to climate change – non-regulatory

Support rural communities in their climate change adaptation and mitigation efforts, including by:

- (a) providing practical and easily accessible information on climate change projections at a local level,
- (b) promoting and supporting land management practices and/or land uses, including *nature-based solutions*, that improve *resilience* to climate change, including rural water resilience and food security,
- (c) promoting and supporting land management practices and/or land uses that will reduce gross greenhouse gas emissions,
- (d) giving preference to climate change efforts that also deliver benefits for indigenous biodiversity, land, fresh and coastal water.

Explanation

This policy promotes and supports low emission agriculture and increased rural *resilience* to climate change.

Policy CC.16: Climate change adaptation strategies, plans and implementation programmes – non-regulatory

Regional, city and district councils should partner with mana whenua / tangata whenua and engage local communities in a decision-making process to develop and implement strategic *climate change adaptation* plans that map out management options over short, medium and long term timeframes, using a range of tools and methods that may include, but are not limited to:

- (a) Te Ao Māori and Mātauranga Māori approaches;
- (b) Dynamic adaptive planning pathways or similar adaptive planning approaches;
- (c) District or regional plan objectives, policies and rules that address subdivision, use and development for areas impacted by climate change and sea level rise;
- (d) Options for managed retreat or relocation;
- (e) A consideration of *Te Mana o te Wai*

- (f) Hazard mitigation options including soft engineering, *nature-based solutions* and methods to reduce the risks from natural hazards exacerbated by climate change and sea level rise; and
- (g) Equitable funding options required to implement the programme.

Explanation

Policy CC.16 provides a range of options for development and implementation of adaptation strategies or plans to suit a particular programme or local circumstances. In some instances, the outcomes may require implementation as objectives, policies, and rules in regional or district plans, but this is not expected to be a requirement.

This policy should be read in conjunction with Policy CC.15 and Method CC.8 that address rural *resilience* to climate change, food and water security.

Policy CC.17: Iwi climate change adaptation plans – non- regulatory

Regional council will assist mana whenua / tangata whenua in the development of iwi *climate change adaptation* plans to manage impacts that may affect Māori relationships with their whenua, tikanga and kaupapa Māori, sites of significance, wai Māori and wai tai values, mahinga kai, wāhi tapu and other taonga.

Explanation

Policy CC.17 recognises that climate change will disproportionately affect Māori, especially as a lot of Māori land is located in hazard prone areas near rivers and the coast. This policy directs the regional council to assist mana whenua / tangata whenua, where appropriate, with the development of iwi-led *climate change adaptation* plans.

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

Promote and support 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, cultural, and economic well-being of local communities, including by:

- (a) identifying where to promote—and incentivise the planting and regeneration of permanent indigenous forest representative of the natural type expected in the area in preference to exotic species, and
- (b) prioritising planting and regeneration of permanent indigenous forest and associated browsing pest animal control on highly erodible land and in catchments where water quality targets for sediment are not reached and in areas where it will support significant indigenous biodiversity values.

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

Explanation

Policy 65 supports and encourages the efficient use of resources to reduce *emissions*. The policy endorses the waste hierarchy, supports increasing generation and use of renewable energy and also promotes similar principles for efficient water and energy use.

Policy FW.8: Land use adaptation – non regulatory

Promote 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 Freshwater Farm Plans,
- c. supporting primary sector groups and landowners in researching and promoting *climate-resilient* and lower emission land uses and pathways to move to new land uses, and
- d. prototyping, researching, and promoting *nature-based solutions* that support water resilience, such as swales and bunds.

Explanation

Policy FW.8 promotes and supports water resilience and *climate change adaptation* in land use practices and change.

Chapter 4.5.2 – Non-regulatory methods – information and guidance

Method CC.1: Climate change education and behaviour change programme

Support, enable and implement climate education and behaviour change programmes, that include Te Ao Māori and Mātauranga Māori perspectives in partnership with mana whenua/tangata whenua, to support an equitable transition to a low-emission and climate-resilient region.

Implementation: Wellington Regional Council.

Method CC.2: Develop guidance on avoiding, reducing and offsetting *greenhouse gas emissions*

Wellington Regional Council will work with city and district councils and mana whenua/tangata whenua to develop guidelines to implement the hierarchy approach to reducing *greenhouse gas emissions* in Policy CC.8 by the end of 2024, including how to prioritise avoiding and reducing gross *greenhouse gas emissions* and when and how to allow for *greenhouse gas emissions* to be offset.

Implementation: Wellington Regional Council.

Method CC.3: Travel choice assessment

The Wellington Regional Council will assist city and district councils with determining land use thresholds for triggering a requirement for a *travel choice assessment*, as well as guidelines for a *travel choice assessment* that city and district councils can provide

to developers to assist them with mitigating the travel movements and associated *greenhouse gas emissions* arising from new subdivision, use and development.

Implementation: Wellington Regional Council

Method CC.3A: Whole of life carbon emissions assessment

Develop guidance to support the development of *whole of life carbon emission assessments*, in accordance with Policy CC.11.

Implementation: Wellington Regional Council

Method 14: Information about natural hazard and climate change effects

Undertake research, prepare and disseminate information about natural hazards and climate change effects in order to:

- (a) guide local authority planning and decision-making; and
- (b) raise awareness and understanding of natural hazards and climate change.

Implementation: Wellington Regional Council, city and district councils and Civil Defence Emergency Management Group*

Method 17: Reducing waste and greenhouse gases emissions from waste streams

Work in partnership with mana whenua / tangata whenua and with city and district councils, the waste management sector, industry groups and the community to:

- (a) reduce organic matter at source, and
- (b) work towards implementing kerbside recovery of organic waste from households and commercial premises, and
- (c) encourage development opportunities for increasing the recovery of biogas from municipal landfills, and
- (d) increase the diversion of organic waste (sludge) from the waste stream before deposition to municipal landfills.

Implementation: Wellington Regional Council, iwi authorities, city and district councils.

Method 22: Integrated hazard risk management and climate change adaptation planning

Integrate hazard risk management and *climate change adaptation* planning in the Wellington region by:

- (a) developing non-statutory strategies, where appropriate, for integrating hazard risk management and *climate change adaptation* approaches between local authorities in the region;
- (b) supporting the development of consistency in natural hazard provisions in district and regional plans;
- (c) assisting mana whenua/tangata whenua in the development of iwi *climate change adaptation* plans; and

- (d) Preparing and disseminating information about classifying risks from natural hazards as low, medium and high to ensure regional consistency.

Implementation: Wellington Regional Council and city and district councils*

5.4 – Non-regulatory methods – identification and investigation

Method CC.4 Prepare a regional forest spatial plan

By December 2024, prepare a regional forest spatial plan, using a partnership approach with mana whenua/tangata whenua and other key stakeholders, as appropriate, to identify where to promote and support planting and natural regeneration of *permanent forest* and associated browsing pest animal control to give effect to Objective CC.5 and contribute to achieving water quality targets for sediment, to inform the requirements of Policy CC.6.

This plan to include:

- (a) a target for an increase in *permanent forest* extent in the Wellington Region to support achieving Objective CC.5,
- (b) evaluation of the potential impacts of increased afforestation on rural production and social well-being, and development of an approach that will maximise the environmental, social, and economic benefits,
- (c) ways to implement and support capability for increasing the area of indigenous forest, including the provision of incentives.
- (d) identification of the types of indigenous forest to prioritise for re-afforestation, including links to the strategic indigenous biodiversity targets and priorities identified through Policy IE.3 and Method IE.3, and
- (e) use of high-resolution spatial data to support identification of areas appropriate for permanent or plantation forestry, site-appropriate indigenous forests and other planting types,
- (f) a process to monitor and report on changes in the extent and health of permanent forest.

Implementation: Wellington Regional Council, city and district councils at their discretion*

Method CC.5: Confirm regional response to reducing agricultural *greenhouse gas emissions*

By 31 December 2024, Wellington Regional Council confirm the preferred policy approach and timeframe to implement Policy CC.5, taking into account changes in agricultural land use and land management practices, predicted changes in *greenhouse gas emissions* from the agriculture sector in the Wellington Region, regulatory and non-regulatory responses, and relevant national policy direction and initiatives.

Implementation: Wellington Regional Council.

Method CC.6: Identifying nature-based solutions for climate change

By 30 June 2024, the Wellington Regional Council will, in partnership with mana whenua/tangata whenua and other stakeholders as appropriate, identify ecosystems in the Wellington Region that should be prioritised for protection, enhancement, and restoration for their contribution as a *nature-based solution* to climate change, including those that:

- (a) sequester and/or store carbon (e.g., forest, peatland),
- (b) provide resilience to people from the impacts of climate change, including from natural hazards (e.g., coastal dunelands, street trees, and wetlands), and
- (c) provide *resilience* for indigenous biodiversity from the impacts of climate change, enabling ecosystems and species to persist or adapt (e.g., improving the health of a forest to allow it to better tolerate climate extremes).

Implementation: Wellington Regional Council

Method CC.7: Advocating for the use of transport pricing tools

Actively advocate to the Government to introduce new regulatory functions or tools for councils to manage congestion and *greenhouse gas emissions* within major *urban areas* through use of pricing tools and/or taxes.

Implementation: Wellington Regional Council

5.5 – Non-regulatory methods – providing support

Method CC.8: Programme to support low-emissions and climate-resilient agriculture-non-regulatory methods

By June 2024, develop and start implementing a targeted climate change extension programme, with mana whenua/tangata whenua and relevant stakeholders, to actively promote and support changes to reduce agricultural *greenhouse gas emissions* and increase rural land use resilience to climate change, including by:

- (a) providing practical and easily accessible information on projected climate change impacts at a local level,
- (b) providing base data held by the regional council to support the development of farm *greenhouse gas emission* profiles,
- (c) promoting and supporting actions to reduce agricultural *greenhouse gas emissions* and/or increase climate resilience,
- (d) identifying appropriate areas and species for tree planting/natural regeneration in farm plans as part of implementing the regional spatial forest plan (see Method CC.4),
- (e) identifying other on-farm nature-based solutions that will increase the resilience of a farm system and/or catchment to the effects of climate change,
- (f) identify and assist catchment groups and water user groups in the development of adaptation plans, and
- (fg) supporting central government and industry climate change programmes/initiatives.

Implementation: Wellington Regional Council

Method CC.9: Support and funding for protecting, enhancing, and restoring indigenous ecosystems and nature-based solutions

Provide support, and seek new sources of funding, to incentivise or implement programmes, including mana whenua/tangata whenua led programmes, that protect, enhance or restore the priority ecosystems identified by Methods IE.3 and CC.6 for their indigenous biodiversity values and/or their contribution as *nature-based solutions* to climate change.

Implementation: Wellington Regional Council

Method CC.10: Establish incentives to shift to low and zero-carbon multi modal transport and public transport

Establish, support and promote a range of incentives for uptake of low and zero-carbon multi modal transport, including public transport, to reduce greenhouse gas *emissions*, and to support an equitable and inclusive transition.

Implementation: Wellington Regional Council

6: Monitoring the Regional Policy Statement and progress towards anticipated environmental results

Topic	Objectives	Anticipated environmental results (AER)
Climate Change	<p>Objective CC.1</p> <p>The Wellington Region is a low-emission and climate-resilient region, where <i>climate change mitigation</i> and <i>climate change adaptation</i> are an integral part of:</p> <ul style="list-style-type: none"> (a) sustainable air, land, freshwater, and coastal management, (b) well-functioning <i>urban areas</i> and <i>rural areas</i>, and (c) The planning and delivery of infrastructure. 	<ul style="list-style-type: none"> 1. All AERs for Objectives CC.3-CC.7 are relevant. 2. By 2030, all new development (both greenfield and brownfield) and infrastructure is located, designed and constructed in ways that support reduction in greenhouse gas emissions and provides for climate-resilience, including features as described by Policies CC.4 and CC.4A.
	<p>Objective CC.2</p> <p>The costs and benefits of transitioning to a low-emission and climate-resilient region are equitable between sectors and communities.</p>	<ul style="list-style-type: none"> 1. By 2030, all sectors and parts of the communities are realizing the benefits of transitioning to a low-emission and climate-resilient region.
	<p>Objective CC.3</p>	<ul style="list-style-type: none"> 1. Net <i>greenhouse gas emissions</i> are reduced to contribute to a 50

	<p>To support the global goal of limiting warming to 1.5 degrees Celsius and New Zealand’s <i>greenhouse gas emissions</i> reduction targets, net <i>greenhouse gas emissions</i> in the Wellington Region are reduced:</p> <p>(a) to contribute to a 50 percent reduction in net <i>greenhouse gas emissions</i> from 2019 levels by 2030, and</p> <p>(b) to contribute to achieving net-zero <i>greenhouse gas emissions</i> by 2050.</p>	<p>percent reduction from 2019 levels by 2030 across the Wellington Region and to achieve net-zero <i>greenhouse gas emissions</i> by 2050.</p>
	<p>Objective CC.4: <i>Nature-based solutions</i> are an integral part of <i>climate change mitigation</i> and <i>climate change adaptation</i>, improving the health, well-being and resilience of people and communities, indigenous biodiversity, and natural and physical resources.</p>	<p>1. By 2030, nature-based solutions are provided for as standard good practice in new development and infrastructure.</p> <p>2. By 2030, ecosystems that provide nature-based solutions to climate change in the Wellington Region have been identified and work is underway with supportive landowners, mana whenua/tangata whenua and other key stakeholders to protect, enhance, and restore them.</p>
	<p>Objective CC.5: By 2030, there is an increase in the area and health of permanent forest, preferably indigenous forest, in the Wellington Region, maximising benefits for carbon sequestration, indigenous biodiversity, land stability, water quality, and social, cultural and economic well-being.</p>	<p>1. The regional forest spatial plan, as described in Method CC.4, has been developed and there is an increase in the area of <i>permanent forest</i> in priority areas identified in this plan.</p>
	<p>Objective CC.6: Resource management and adaptation planning increases the resilience of communities, infrastructure and the natural environment to the short, medium, and long-term effects of climate change.</p>	<p>1. By 2030, community-based adaptation plans have been developed for areas assessed as facing high risks from natural hazards and climate change.</p>
	<p>Objective CC.7: People and businesses understand what the current and predicted future effects of climate change, and how this may impact them, means for their future how to respond to the challenges of climate change, and are actively involved in</p>	<p>1. Public surveys show an increased public awareness of the effects of climate change in the Wellington Region and support for, and uptake of, appropriate mitigation and adaptation responses.</p>

	planning and implementing appropriate mitigation and adaptation responses.	
	Objective CC.8: Iwi and hapu Mana whenua/tangata whenua are empowered to make decisions to achieve climate-resilience in their communities.	1.Greater Wellington has partnered with mana whenua/tangata whenua to prepare climate change adaptation plans, focusing on the most at risk areas within their rohe.
Natural Hazards	Objective 19 The risks to people, communities, their businesses, property, and infrastructure from natural hazards and the effects of climate change are avoided or <i>minimised</i> .	1. Regional and district plans have: (a)-used a risk-based approach to assess hazards and risks to new or existing subdivision, use and development from natural hazard and climate change impacts over at least a 100 year planning horizon; and (b) included hazard overlays, objectives, polices and rules to manage or avoid new or existing subdivision, use and development in those areas. 2. There is no new subdivision and inappropriate development in areas at high risk from natural hazards
	Objective 20 Natural hazard mitigation measures and <i>climate change adaptation</i> activities <i>minimise</i> the risks from natural hazards, and impacts on, <i>Te Mana o te Wai</i> , taonga species, sites of significance to mana whenua/tangata whenua, natural processes, indigenous ecosystems and biodiversity.	1. There is no increase in the risk from natural hazards as a result of subdivision, use or development (including mitigation works). 2. Where hazard and climate change mitigation measures are employed, there is a greater number and range of <i>nature-based solutions</i> used, that achieve integrated management and broad environmental outcomes.
	Objective 21 The resilience of our communities, infrastructure, and the natural environment to natural hazards is improved, including to the short, medium, and long-term effects of climate change, and sea level rise is strengthened, and people are better	1.Over 75 per cent of the community surveyed has an understanding of the consequences from local natural hazards. 2.Over 75 per cent of the community surveyed is prepared for natural hazard

	prepared for the consequences of natural hazard events.	events.
--	---	---------

Climate change adaptation

In human systems, actions and processes to adjust to actual or expected climate and its effects, in order to reduce harm or take advantage of beneficial opportunities. In natural systems, the process of adjusting to actual climate and its effects.

Climate change mitigation

Human actions to reduce *greenhouse gas emissions* by sources or enhance removals by sinks of greenhouse gases.

Climate-resilience/Climate-resilient/Resilience and Resilient (in relation to climate change or natural hazards)

The capacity and ability of natural and physical resources, including people, communities, businesses, infrastructure, and ecosystems, to withstand the impacts and recover from the effects of climate change, including natural hazard events.

Greenhouse gases emissions

Atmospheric gases released into the atmosphere that contribute to climate change. These gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆) which are all covered by the Climate Change Response Act 2002. A reference to greenhouse gas emissions means “gross” greenhouse gas emissions unless otherwise expressed as “net greenhouse gas emissions” or “net-zero”.

Hazard risk management strategy

A strategic approach for the management of the risks from natural hazards to minimise or reduce the overall risk of social, environmental and economic harm and adverse effects from natural hazards. It includes some or all of the following elements; hazard and hazard risk identification, impact assessment, potential mitigation works (costs/impacts/maintenance), assessment of environmental effects, assessment of alternate options, cost-benefit analysis, budget allocation; community engagement and implementation plan. The scale of a hazard risk management strategy should be commensurate to the size of the proposed development or activity.

Hazard sensitive activity

Means any building that contains one or more of the following activities:

- community facility
- early childhood centre
- educational facility
- emergency service facilities
- *major hazard facility*
- healthcare activity
- kōhanga reo
- marae

- residential activity
- retirement village
- research activities
- visitor accommodation

Highly erodible land

Land at risk of severe mass-movement erosion (landslide, earthflow, and gully) if it does not have a protective cover of deep-rooted woody vegetation.

Major hazard facility

Has the same meaning as the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 - means a facility that WorkSafe has designated as a lower tier major hazard facility or an upper tier major hazard facility under regulation 19 or 20.

Minimise

Reduce to the smallest amount reasonably practicable. Minimised, minimising and minimisation have the corresponding meaning.

Nature-based solutions

Use and management of natural ecosystems and processes, or engineered systems that mimic natural processes, to reduce *greenhouse gas emissions*, support *climate change adaptation* and/or strengthen the resilience and well-being of people, indigenous biodiversity, and natural and physical resources to the effects of climate change.

Note: “nature-based solutions” is an umbrella term that encompasses concepts such as green infrastructure (including as defined in the National Planning Standards), green-blue infrastructure, and water-sensitive urban design.

Note: Examples could include:

Climate change mitigation:

- planting forests to sequester carbon
- managing peatland in a way that retains its carbon stores, avoids soil loss and associated land subsidence

Strengthening resilience and providing for climate change adaptation:

a. *for people*

- planting street trees to reduce urban heat
- restoring coastal dunelands to provide increased resilience to the damaging effects of storm surges linked to sea level rise
- leaving space for rivers to undertake their natural movement and accommodate increased floodwaters

- the use of *water-sensitive urban design* principles and methods, such as rain gardens to manage contaminants and reduce stormwater runoff in urban areas
 - retaining wetlands and planting swales on farmland to slow runoff, reduce flood peaks, retain base flows, and protect water quality
- b. for ecosystems and species*
- restoring indigenous forest to a healthy state to increase its resilience to increased climate extremes
 - leaving space for estuarine ecosystems, such as salt marshes, to retreat inland in response to sea level rise.

Optimise transport demand

Optimise transport demand means:

- (a) Influencing demand spatially and reducing trip length; then
- (b) Creating choices to travel via sustainable modes and reduce emissions; then
- (c) Designing and delivering development in a way that supports sustainable modes and an efficient transport network.

Organic waste

Wastes containing carbon compounds that are capable of being readily biologically degraded, including by natural processes, such as paper, food residuals, wood wastes, garden and plant wastes, but not inorganic materials such as metals and glass or plastic. Organic wastes can be decomposed by microorganisms into methane, carbon dioxide, nitrous oxide, and simple organic molecules (plastic contains carbon compounds and is theoretically organic in nature, but generally is not readily biodegradable).

Permanent forest

Forest actively managed to maintain continuous canopy cover.

Plantation forestry

A forest deliberately established for commercial purposes, being:

- (a) at least 1 ha of continuous forest cover of forest species that has been planted and has or will be harvested or replanted; and
- (b) includes all associated forestry infrastructure; but
- (c) does not include—
 - (i) a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30 m; or
 - (ii) forest species in urban areas; or
 - (iii) nurseries and seed orchards; or
 - (iv) trees grown for fruit or nuts; or
 - (v) long-term ecological restoration planting of forest species; or
 - (vi) willows and poplars space planted for soil conservation purposes.

Small scale and community scale renewable energy generation

Means renewable energy generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network.

Travel Choice Assessment

A travel choice assessment demonstrates how the subdivision, use and development has considered and incorporated accessibility and connectivity to active transport, sustainable transport modes and supports redistribution of demand from private car use to active and sustainable transport modes.

Walkable catchment

A walkable catchment is an area that an average person could walk from a specific point to get to multiple destinations. A walkable catchment consists of a maximum 20 minute average walk, or as otherwise defined in district plans.

Water-sensitive urban design

The integration of planning, engineering design and water management to mimic or restore natural hydrological processes in order to address the quantitative and qualitative impacts of land use and development on land, water and biodiversity, and the community's aesthetic and recreational enjoyment of waterways and the coast. Water-sensitive urban design manages stormwater at its source as one of the tools to control runoff and water quality. The terms low impact design, low impact urban design and water-sensitive design are often used synonymously with water-sensitive urban design.

Whole-of-life greenhouse gas emissions assessment

An evaluation of the total greenhouse gas emissions of a proposal measured in tonnes of carbon dioxide equivalent units, derived from assessing the emissions associated with all elements of the proposed project over its entire life.