

National adaptation plan and emissions reduction plan: Resource Management Act 1991 guidance note





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About this guidance note

From 30 November 2022 local government must 'have regard to' *Aotearoa New Zealand's first national adaptation plan* (national adaptation plan) and *Aotearoa New Zealand's first emissions reduction plan* (emissions reduction plan) when they prepare or change a regional policy statement, regional plan or district plan. This is a requirement under the Resource Management Act 1991 (RMA), made by the Resource Management Amendment Act 2020 (RMAA).¹ This requirement was introduced to create a stronger link between the Climate Change Response Act 2002 (CCRA) and decision-making under the RMA.

This guidance note has been prepared to help local government meet this requirement.

Scope of this guidance note

This guidance note:

- explains how local government must 'have regard to' the national adaptation plan and emissions reduction plan when they prepare policy statements and plans under the RMA
- highlights the key parts of the national adaptation plan and emissions reduction plan that local government should consider
- provides more information about climate change scenarios in the national adaptation plan and how local government should use them
- may also support local government to consider the national adaptation plan and emissions reduction plan in other RMA instruments, such as resource consents,² and future development strategies required by the National Policy Statement on Urban Development (NPS-UD).

The 2020 amendments also repealed RMA sections 70A, 70B, 104E and 104F. These sections restricted local government from considering the effects that greenhouse gas discharges have on climate change.³ Repealing these sections means that from 30 November 2022, the RMA can also be a long-term tool for reducing emissions. This guidance note does not cover the wider implications of the repealed sections.

This guidance note is not an exhaustive document and is not a substitute for reading the national adaptation plan and emissions reduction plan. It is also not intended to limit how local government use the plans.

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¹ Sections 17, 18 and 21 are amendments of RMA sections 61(2)(d), 66(2)(f) and 74(2)(d), respectively.

² If a local government chooses to do so, it can consider under section 104(1)(c) of the RMA, which allows a consent authority to have regard to any other matter it considers relevant and reasonably necessary to determine the consent.

³ By repealing these sections, local government can now also consider greenhouse gas emissions when they make consent decisions.

Status of this guidance note

If required, the Ministry for Environment may update this guidance note to reflect changes to the national adaptation plan or emissions reduction plan, or the tools and information that support them.

The resource management system is currently being reformed – the Government introduced new Bills on 15 November 2022 seeking to repeal and replace the RMA with new legislation. This guidance note applies to policy statements and plans prepared under the RMA. Once the new resource management system is in place, this note will be updated as appropriate to reflect changes in the legislative framework.

The Ministry for the Environment will not be held responsible for any action arising from using this publication.

Legislative requirements

The national adaptation plan and emissions reduction plan are requirements under the CCRA.⁴ They are not regulations in themselves; they set out the Government's plans to meet Aotearoa New Zealand's climate goals.

- The national adaptation plan sets out the Government's strategies, policies and proposals to address the risks identified in the National Climate Change Risk Assessment for New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Pūrongo whakatōpū (Ministry for the Environment, 2020a).
- The emissions reduction plan sets out the principles the Government will use, and the
 actions it will take, to keep emissions within Aotearoa New Zealand's first emissions
 budget (2022–25) and put us on track to meet the CCRA 2050 emissions reduction target.⁵

Local government must 'have regard to' these documents when making or changing regional policy statements, regional plans, or district plans.

'Having regard to' a matter means giving the matter genuine attention and thought before deciding whether, or how, to reflect that matter in planning decisions. 'Having regard to' usually means the decision maker must give reasons for how they considered the matter.

The way local government has regard to the national adaptation plan and emissions reduction plan in a planning scenario will depend on:

- the local circumstances
- other mandatory considerations under the RMA
- the relevance of any part of the national adaptation plan or emissions reduction plan to the decision it is making.

In relation to plans and policies prepared under the RMA, the requirement to 'give effect to' higher order documents such as a national policy statement is a stronger statutory requirement than 'have regard to'. Where possible, local government should consider giving effect to these higher order documents in a way that is consistent with relevant parts of the emissions reduction plan or national adaptation plan.

⁴ Refer to the CCRA section 5ZS.

⁵ The CCRA requires all greenhouse gases, other than biogenic methane, to reach net zero by 2050; and to reduce biogenic methane emissions by 10 per cent by 2030, and by 24–47 per cent by 2050, compared with the level of emissions in 2017.

Part 1: National adaptation plan

The RMA already requires significant risks from natural hazards and the effects of climate change to be considered and prioritised.⁶ The national adaptation plan provides more specific context for how these matters can be considered. Part 1 of this guidance note summarises the national adaptation plan and its relationship with resource management planning. It covers:

- Aotearoa New Zealand's long-term strategy for adapting to climate change
- climate adaptation priorities for 2022 to 2028
- more information on climate change scenarios recommended in the national adaptation plan.

Aotearoa New Zealand's long-term strategy for adapting to climate change

When having regard to the national adaptation plan, local government should consider how they can manage activities in a way that can contribute to meeting Aotearoa New Zealand's long-term adaptation strategy and goals (Ministry for the Environment, 2022a, p 33). Here are some examples of how planning under the RMA can support these goals.

Goal 1: Reduce vulnerability to the impacts of climate change

This goal involves making people and systems less sensitive and susceptible to the effects of climate change.

Identifying risks can help prioritise management in the areas that are most exposed and vulnerable to the climate hazards and risks.

In the built environment, local government can consider how the location of sensitive activities and vulnerable people impacts the level of risk. This could include services that provide support for communities and vulnerable populations in hazard events (such as schools, hospitals, emergency services and community services).

As our natural environment becomes increasingly vulnerable to the effects of climate change, it is critical that these systems are equipped to cope with these changes and supported through local government planning. For example, implementing the National Policy Statement for Freshwater Management 2020 (Ministry for the Environment, 2020b) is a key tool to improve the health and capacity of freshwater bodies⁷ to cope with longer, drier, wetter and warmer seasons.

⁶ Section 6(h) of the RMA requires that "the management of significant risks from natural hazards" be recognised and provided for as a matter of national importance. Section 7(i) requires all persons exercising functions and powers under the RMA to have particular regard to the "effects of climate change".

⁷ This National Policy Statement applies to all freshwater (including groundwater) and, to the extent they are affected by freshwater, to receiving environments (which may include estuaries and the wider coastal marine area).

Goal 2: Enhance adaptive capacity and consider climate change in decisions at all levels

This goal involves helping people, institutions and systems adjust to climate change by building their capacity to respond.

A key action that local government can take to help people, institutions and systems adjust is to develop long-term adaptation plans using dynamic adaptive pathways planning (DAPP). DAPP allows you to develop different options for adapting to change, and pathways to implement the options.

Once developed, local government can use their long-term adaptation plan to inform the policies and plans they develop under the RMA. Under the new resource management system, they will also be able use these plans to inform regional spatial strategies.

One way that local government can make their RMA-related plans more adaptable is, where appropriate, to limit the duration of activities, so they can reflect changes to climate risk. This can be done by including limited duration or trigger-based provisions in plans, or assessment matters that may limit the duration for which resource consents can be granted.

Sharing knowledge and learning from others also supports people, institutions and systems to adapt. Local government has a role to raise the awareness of their communities about climate risks and possible risk management options, through their planning processes.

Goal 3: Strengthen resilience

This goal involves taking action to strengthen the way people and systems cope with immediate climate impacts, as well as building capacity for learning and systematic change to prepare for the future. This is known as 'transformational adaptation'.

We can make our built environment more resilient to the anticipated effects of climate change. This can be achieved by locating and designing assets in ways that reflect the level of climate risk they will face during their lifetime. This process could include considering different approaches to adapt to change, including managed retreat, where necessary.

RMA plans and policy statements can consider a range of methods to avoid, accommodate and protect. Possible methods include:

- setting infrastructure back from vegetation to reduce fire risk
- raising floor levels above projected flood levels
- using adaptable types of buildings, such as amphibious or floating houses
- maintaining or improving existing flood or coastal-protection structures.

Long-term strategic planning is an essential tool for increasing the resilience of the natural and built environment. Considering the effects of climate change as constraints for long-term development enables local government to strengthen the resilience of their environment, community and economy. The NPS-UD and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 provides an opportunity, where applicable, to strengthen resilience to climate change by giving councils discretion through qualifying matters to be less enabling of development where intensification may be inappropriate.

Addressing climatic and human-induced pressures on the environment is key to maintaining a thriving, resilient natural system. For example, local government can manage these pressures

by implementing the National Policy Statement for Freshwater Management 2020 (Ministry for the Environment, 2020b), the New Zealand Coastal Policy Statement 2010 (Department of Conservation, 2010) and, once operative the National Policy Statement on Indigenous Biodiversity, can help us become resilient.

Climate adaptation priorities for 2022–28

The national adaptation plan sets out four immediate priorities for action from 2022 until 2028. Local government should consider these four immediate priorities when they set their own planning priorities.

Priority 1: Enabling better risk-informed decisions

The national adaptation plan highlights how important it is to assess and understand our current and future climate risks. We have developed information, guidance and tools to help people understand climate risks. In using these tools and other existing resources, local government can assess, and make decisions related to, the climate risks in their regions.

It also outlines what the Government is doing to ensure all New Zealanders have access to relevant, up-to-date information, and what new tools and guidance it is developing to support them to make better risk-informed decisions (Ministry for the Environment, 2022a, p 46–61). This information will continue to change and be updated. As more data becomes available, local government can use it to inform their planning processes.

Climate projections

- Climate Change Projections for New Zealand: Atmosphere Projections for New Zealand: Atmospheric projections based on simulations undertaken for the IPCC Fifth Assessment, 2nd Edition (Ministry for the Environment, 2018).
- NZ SeaRise Te Tai Pari O Aotearoa Programme.
- Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings (Bodeker et al, 2022).

Coastal risk assessment and planning

- *Coastal Hazards and Climate Change: Guidance for Local Government* (Ministry for the Environment, 2017b)⁸.
- Interim guidance on the use of new sea-level rise projections (Ministry for the Environment, 2022c).

Risk assessment

• *He Kupu Ārahi Mō te Aromatawai Tūraru Huringa Āhuarangi ā-Rohe / A Guide to Local Climate Change Risk Assessments* (Ministry for the Environment, 2021).

For more information on priority 1, refer to the national adaptation plan, chapter 3 (Ministry for the Environment, 2022a).

⁸ The Ministry will release a new version of this guidance in early 2023.

Priority 2: Driving climate-resilient development in the right locations

Local government has a crucial role to ensure what is decided today – about new developments and investments – will be resilient to the effects of climate change in the future. This will give us more capacity to adapt to a changing climate.

Transitioning to the new resource management system will take time. Until then, local government should use their existing powers to drive climate-resilient development in the right places. For example, under the RMA, local government must implement the:

- New Zealand Coastal Policy Statement 2010 (Department of Conservation, 2010) to avoid new development, redevelopment or changes in land use that will increase the risk of harm or adverse effects from coastal hazards. Local government should consider restricting these activities in at-risk areas, by using the scenarios recommended in the national adaptation plan. The New Zealand Coastal Policy Statement also supports making development that has to be located in coastal areas more resilient
- National Policy Statement for Freshwater Management 2020 (Ministry for the Environment, 2020b) to manage water scarcity in a changing climate.

There are also other opportunities outside the RMA to drive climate-resilient development in the right places. For example, local government can:

- develop future development strategies that recognise climate risks as constraints on future development
- work with Kāinga Ora Homes and Communities to look for climate-resilient development opportunities, using the Urban Development Act 2020
- work with major infrastructure providers on long-term plans for new bulk infrastructure services, considering how the timing and location can be managed for improved climate resilience.

For more information on priority 2, refer to the national adaptation plan, chapter 4 (Ministry for the Environment, 2022a).

Priority 3: Considering adaptation options, including managed retreat

Local government is leading conversations with communities threatened by current and future climate risks. This process needs to consider a range of adaptation options to reduce these risks. The options include avoiding the risk, protecting communities from the risk, accommodating the risk, and retreating from the risk.

The national adaptation plan outlines work planned to improve the legislative tools and information available to local government, and update their functions, so they can explore these options with communities. These changes will take time, but local government should continue planning for these options in the meantime, particularly for communities facing the greatest risks or likely to be affected sooner.

Coastal Hazards and Climate Change: Guidance for Local Government (Ministry for the Environment, 2017b) outlines what local government can do with coastal communities to

assess different options and make plans to adapt to climate change. Several councils are already well underway with using this approach.

We will release a new version of this guidance in early 2023. We are also preparing guidance on dynamic adaptive pathways planning for central and local government, and guidance on how to produce adaptation plans for other climate risks.

For more information on priority 3, refer to the national adaptation plan, chapter 5 (Ministry for the Environment, 2022a).

Priority 4: Embedding climate resilience across government

The Government will embed climate resilience into all its strategies and policies related to the national adaptation plan's outcome areas.⁹ The national adaptation plan outlines what the Government will do to support adaptation to the effects climate change in each outcome area. More information on the action relevant to local government is available in *Climate change and local government: What the national adaptation plan means for you* (Ministry for the Environment, 2022d).

For more information on priority 4, refer to the national adaptation plan, chapters 6 to 10 (Ministry for the Environment, 2022a).

The way to use the climate change scenarios recommended in the national adaptation plan

Why climate change scenarios are included in the national adaptation plan

In feedback on the draft national adaptation plan, local government asked for more clarity on how they can manage exposure to climate risk before the new resource management system is in place. The climate change scenarios recommended in the national adaptation plan reiterate and update scenarios recommended in existing guidance.¹⁰

⁹ The outcome areas are natural environment; homes, buildings and places; infrastructure; communities; and economy and financial systems (Ministry for the Environment, 2022a, p 97–171).

¹⁰ The existing guidance includes New Zealand Coastal Policy Statement 2010 (Department of Conservation, 2010), Tools For Estimating the Effects of Climate Change on Flood Flow: A Guidance Manual for Local Government in New Zealand (Woods et al, 2010), Climate Change Projections for New Zealand: Atmosphere projections based on simulations undertaken for the IPCC Fifth Assessment 2nd edition (Ministry for the Environment, 2018), Coastal Hazards and Climate Change: Guidance For Local Government (Ministry for the Environment, 2017b), Arotakenga Huringa Āhuarangi: A Framework for the National Climate Change Risk Assessment for Aotearoa New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Pūrongo whakatōpū (Ministry for the Environment, 2020a), He kupu ārahi mō te aromatawai tūraru huringa āhuarangi ā-rohe / A guide to local climate change risk assessments (Ministry for the Environment, 2021), Aotearoa New Zealand climate change risk assessments (Ministry for the Environment, 2021), Aotearoa New Zealand climate change risk assessments (Ministry for the Environment, 2021), Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings (Bodeker et al, 2022), and Interim guidance on the use of new sea-level rise projections (Ministry for the Environment, 2022c).

Which climate change scenarios to use

The national adaptation plan recommends using at least two of the five Intergovernmental Panel on Climate Change (IPCC) climate change scenarios to assess hazards and risks in coastal and non-coastal areas (Ministry for the Environment, 2022a, p 69).¹¹ These scenarios enable local government to understand a range of possible outcomes of increasing climate hazards and risks, and plan how to respond to them.

What are the IPCC climate change scenarios

Representative concentration pathways (RCPs) are scenario-based climate projections used in the Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change¹² that account for a range of potential greenhouse gas emissions pathways. The range of scenarios available include RCP2.6, RCP4.5, RCP6.0, RCP8.5, and RCP8.5+ (the latter for stress testing coastal risk) (Ministry for the Environment, 2017b, 2018).

Socio-economic shared pathways (SSPs) were developed for the *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*¹³, providing a range of scenarios that also account for a range of socio-economic development pathways. The range of scenarios available include SSP1-1.9, SSP1-2.6, SSP2-4.5, SSP3-7.0, SSP5-8.5 and SSP5-8.5+ (the latter for stress testing coastal risk) (Bodeker et al, 2022; Ministry for the Environment, 2022c).

The plan recommends:

- using the best available data for the middle-of-the-road scenario (SSP2-4.5 or RCP4.5) and the fossil-fuel intensive development scenario (SSP5-8.5 or RCP8.5)
- screening hazard and risk assessments for longer-term coastal impacts up to 2130 (SSP5-8.5 or RCP8.5).

The national adaptation plan recommends local government should use these climate change scenarios at a minimum. However, where possible, local government are encouraged to use the full range of relevant scenarios.

Why these climate change scenarios are recommended

Using these climate change scenarios will help with an understanding of what the future could look like and support better risk-based decisions for the activity being considered, given the local context.

Middle-of-the-road scenario

This scenario (SSP2-4.5 or RCP4.5) reflects moderate emissions and implementation of current global emissions reduction policy settings. It represents limiting the rise in global air temperature to 2.7°C by 2100.

¹¹ For more information about climate change scenarios, see Climate change scenarios for New Zealand.

¹² See Summary for Policymakers for more information on RCPs (Intergovernmental Panel on Climate Change, 2013).

¹³ See Summary for Policymakers for more information on SSPs (Intergovernmental Panel on Climate Change, 2021).

By 2100, Aotearoa could see air temperature increase by an average of 1.6°C (or a range of 1.03–2.26°C), and sea-level rise by an average 0.57 metres (or a range of 0.44–0.78 metres), before any vertical land movement is included.¹⁴

Fossil-fuel intensive scenario

This scenario (SSP5-8.5 or RCP8.5) broadly aligns with emissions-reduction practice over the past few decades. It reflects high emissions, limited mitigation measures and no global emissions reduction policy settings. This scenario represents a rise in global air temperature to 4.4°C by 2100.

By 2100, Aotearoa could see air temperature increase by an average of 3.1°C (or a range of 2.20–4.05°C), and sea-level rise by an average 0.83 metres (or a range of 0.67–1.09 metres), before any vertical land movement is included.¹⁵

Upper-range fossil-fuel intensive development scenario

This scenario (SSP5-8.5 or RCP8.5) enables local government to understand the full extent of possible climate risk. It is particularly important for developments with a long timeframe (more than 100 years), especially in these situations:

- projects and activities that are sensitive to climate risk
- coastal planning activities, due to the very long time-lag (from decades to centuries) between sea level rising and seeing the effects on developments. The effects of ongoing, and essentially irreversible, sea-level rise will be different to other effects of climate change. These are more directly related to global heating and emissions in the near future, so they will respond more quickly if global emissions decline.

¹⁴ New Zealand estimates are calculated relative to 1995-2014 baseline period, as opposed to 1850-1900 period used by IPCC, therefore appear lower than IPCC global estimates. *Global temperature estimates – Summary for Policymakers* (Intergovernmental Panel on Climate Change, 2021). *Aotearoa air temperature estimates – Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings* (Bodeker et al, 2022). *Aotearoa sea-level rise estimates (for the average) - Interim guidance on the use of new sea-level rise projections* (Ministry for the Environment, 2022c). *Aotearoa sea-level rise estimates (for the range) - NZSeaRise – Our maps.*

¹⁵ See references above.

Where to find the most up-to-date data

NZ SeaRise has produced sea-level rise projections for coastal risks that are downscaled to a national level from the latest global climate projections from the IPCC. ¹⁶ and include vertical-land-movement modelling.¹⁷ Local government should use these when they assess or reassess the risks in coastal areas. Guidance for how to use the new sea-level rise projections is available on our website.¹⁸ If a local government already has a project underway, they can continue using the guidance in *Coastal Hazards and Climate Change: Guidance for Local Government* (Ministry for the Environment, 2017b), but stress test proposals for vertical land movement.

For non-coastal climate risks, NIWA is developing downscaled projections for changes such as air temperature, rainfall and wind, using the latest global climate change projections. These will be available by June 2024, and if needed this guidance will be updated to align.¹⁹ Until this work is complete, local government should refer to existing downscaled climate projections based on modelling for IPCC AR5 in *Climate Change Projections for New Zealand: Atmosphere projections based on simulations undertaken for the IPCC Fifth Assessment 2nd edition* (Ministry for the Environment, 2018) and *Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings* (Bodeker et al, 2022) to assess non-coastal risks.

¹⁶ The NZ SeaRise: Te Tai Pari O Aotearoa Programme has released location-specific sea-level rise projections out to the year 2300 for every 2 km of the coast of Aotearoa New Zealand. Guidance on how to use the projections in risk and hazard assessments is in the *Interim guidance on the use of new sea-level rise projections* (Ministry for the Environment, 2022c).

¹⁷ These changes are covered in the *Interim guidance on the use of new sea-level rise projections* (Ministry for the Environment, 2022c).

¹⁸ Interim guidance on the use of new sea-level rise projections (Ministry for the Environment, 2022c).

¹⁹ The downscaled projections are from the Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. See Summary for Policymakers (Intergovernmental Panel on Climate Change, 2013).

Part 2: Emissions reduction plan

Part 2 of this guidance note summarises the emissions reduction plan and its relationship with resource management planning. It covers:

- the relationship between the emissions reduction plan and the RMA
- the five guiding principles of the emissions reduction plan and how they relate to RMA plan development
- how the actions of the emissions reduction plan can be supported by RMA planning.

The relationship between the emissions reduction plan and the RMA

Planning decisions can have long-term consequences for the emissions created in cities, districts and regions, so they can be a powerful tool to reduce emissions. Plans developed under the RMA should consider how they can support the actions and outcomes in the emissions reduction plan. Existing RMA practices and national direction in some parts align with supporting the actions in the emissions reduction plan. The emissions reduction plan includes actions to update the resource management system, existing national direction or create new national direction.

The emissions reduction plan is future-focused and considers matters that are beyond decisions made under the RMA. RMA planning needs to integrate with other decision-making tools (such as strategic-infrastructure planning documents), to effectively support the strategic element of the emissions reduction plan.

The five guiding principles of the emissions reduction plan

The emissions reduction plan is based on five principles. The plan is comprehensive – it looks beyond reducing emissions in isolation. The principles set out how Aotearoa can make a comprehensive, managed transition to a low-emission economy. The plan contains actions to ensure the transition is fair, equitable and inclusive, and make the most of the opportunities it presents.

Principle 1: Playing our part

The purpose of the emissions reduction plan is to contribute to the world's efforts to limit the global temperature rise to 1.5°C above pre-industrial levels. This will help to avoid further increasing the impacts of climate change and is likely to reduce the costs of adaptation.

Aotearoa has:

- legislated a domestic emissions-reduction target for 2050
- set ambitious, but achievable, emission budgets for 2022 to 2035
- established sub-targets to monitor progress in key sectors.

For more information on principle 1, refer to the emissions reduction plan, chapter 1.

Principle 2: Empowering Māori

We need to ensure the transition is equitable for Māori and led by Māori, to uphold their rights and interests under Te Tiriti o Waitangi. To do this, the Crown and Māori need to strengthen their relationships, and their capability to work as equal partners on our climate response. This will include elevating Māori leadership and te ao Māori in planning, problemsolving and decision-making, as well as enabling and empowering Māori to take climate action at a local level.

For more information on principle 2, refer to the emissions reduction plan, chapter 2.

Principle 3: Equitable transition

We need to ensure the transition is equitable for all New Zealanders. To do this, the transition will be based on five objectives:

- 1. Seize the opportunities of the transition.
- 2. Support proactive transition planning.
- 3. Enable an affordable and inclusive transition.
- 4. Build the evidence base and tools to monitor and assess impacts.
- 5. Encourage informed public participation.

For more information on principle 3, refer to the emissions reduction plan, chapter 3.

Principle 4: Working with nature

Nature-based solutions are inspired and supported by nature, cost-effective and beneficial for the environment, society and economy; and help build our resilience to the effects of climate change. Nature-based solutions tend to have less impact on the environment than hard engineered solutions, and can be cheaper.

Climate change policies should consider their environmental effects, and the costs and cobenefits to biodiversity. Policies, plans and regulations should enhance biodiversity and the environment. Where possible, they should have minimal negative effects on nature.

For more information on principle 4, refer to the emissions reduction plan, chapter 4.

Principle 5: A productive, sustainable and inclusive economy

Economic-system settings support industries to take up the opportunities afforded by the transition described in the emissions reduction plan. This means finding the right balance of emissions pricing through the New Zealand Emissions Trading Scheme, regulations (including the resource management planning), and policies on innovation, equitable transition measures, behaviour change, and finance.

Principle 5 has five parts:

- 1. **Emission pricing** an economic instrument that incentivises decisions to reduce emissions.
- 2. **Funding and financing** investment in outcomes that will lower emissions.
- 3. **Planning and infrastructure** planning decisions about land use, resources and infrastructure that require, promote and support reducing emissions and increasing resilience to the effects of climate change. This part of the principle involves integrating growth, land use and infrastructure planning with funding and financing, to achieve a low-emission urban environment and efficient infrastructure investments.
- 4. **Research, science, innovation and technology** technologies and innovations that need to increasingly evolve to enable the transition to reduce emissions to happen at scale and pace.
- 5. **Circular economy and bioeconomy** an approach that involves eliminating waste and pollution from our economy, keeping resources in use for as long as possible, and recovering value from products and materials at the end of their lifecycle.

For more information on principle 5, refer to the emissions reduction plan, chapters 5–9.

How local government can support the five principles in RMA plan development

- When developing RMA-related plans, local government should consider climate change issues and the role that RMA plans have in reducing greenhouse-gas emissions.
- Elevate and enable tangata whenua participation, mātauranga Māori and kaitiakitanga in RMA and integrated non-RMA planning that relates to climate change. Examples include helping iwi and hapū authorities to access, collect and understand emissions data to support their roles under the RMA; working with iwi and hapū authorities to integrate their climate strategies and/or management plans into spatial and infrastructure planning; ensuring infrastructure planning for low-emission outcomes supports Māori aspirations for their land and water; and ensuring local mātauranga Māori informs biodiversity outcomes, policies and methods
- Strategically plan for and support a transition that achieves equitable outcomes, seizes opportunities, and removes barriers for local climate action. Examples include planning urban forms that provide easy access to low-emission transport options and regulation that enables local small scale electricity generation.
- Prioritise and encourage nature-based solutions that reduce emissions and have multiple co-benefits. Examples include where a coastal environment affected by rising sea levels and severe weather events, restoring coastal wetlands or dunes rather than using a hard engineering solution, such as a seawall; and in an urban environment blue green infrastructure such as urban trees or water sensitive design.
- Integrate RMA-related plans with non-RMA strategies and spatial plans, and funding and financing decisions, so that decisions on reducing emissions have a meaningful impact.
- RMA-related plans should complement other initiatives in the emissions reduction plan, such as emissions pricing; funding and financing; planning and investment; research, science, innovation and technology; and circular economy and bio economy.

How RMA plans can support the sector plans

The emissions reduction plan has chapters on seven sectors. Each chapter sets out what actions the sector can take to reduce emissions. Together, these actions form Aotearoa New Zealand's transition pathway to a low-emission economy and put us on track to meet our first emissions budget and, ultimately, our 2050 domestic emissions-reduction target.

Transport sector

The emissions reduction plan supports low-emission transport infrastructure and urban form outcomes that:

- enables people to walk, cycle and use public transport
- reduces vehicle kilometres travelled by private vehicles
- supports low-emission private vehicles (primarily electric)
- decarbonises heavy transport and freight.

How RMA plans can support initiatives in the transport sector

RMA-related plans can support strategic and spatial planning for low-emission transport by integrating land use, urban development or growth, transport planning and investment that:

- enables people to live in communities with access to convenient, affordable and frequent public transport, and safer walkways and cycle lanes. This includes reducing the distance people need to travel for their daily needs and understanding travel required for education and employment
- enables mixed-use, medium- and high-density zoning that supports the efficient use of public transport, walking and cycling infrastructure
- reduces or discourages activities that can increase transport emissions
- enables strategic planning for the development and effective operation of the transport infrastructure required to lower emissions
- makes electric vehicle charging facilities and bicycle parking available in areas where people live and work
- supports the transition to decarbonisation of freight, public transport, aviation, and maritime transport.

The National Policy Statement on Urban Development (NPS-UD) gives some direction on how climate mitigation is relevant to urban planning decisions. The Future Development Strategy required by the NPS-UD will be an important determinant of how future growth aligns with emission-reduction outcomes.

Other documents relevant to RMA-related plans mirror the actions to reduce emissions in the transport sector. For example, the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 implemented medium density residential standards (MDRS). The Government Policy Statement on Housing and Urban Development (GPS-HUD) (Ministry of Housing and Urban Development, 2021) and Government Policy Statement on Land Transport (GPS-LT) (Ministry of Transport, 2021) align low-emission transport infrastructure and housing development outcomes.

For more information on the transport sector, refer to the emissions reduction plan, chapter 10.

Energy and industry sector

The emissions reduction plan supports:

- using energy efficiently
- managing the demand for energy
- ensuring the electricity system is ready to meet future needs.

This work includes accelerating the generation of renewable electricity, supporting infrastructure to transmit and distribute renewable electricity, reducing reliance on fossil fuels, switching to low-emission fuels, and reducing emissions and use of energy by industry.

How RMA plans can support initiatives in the energy and industry sector

- Support enabling, and strategic and spatial planning for low-emission fuels, renewable electricity generation (including small scale generation) and transmission and distribution infrastructure.
- Support working towards a reduced reliance on fossil-fuel baseload electricity generation in an affordable way that maintains reliability.
- Support the decarbonisation of Aotearoa industries by managing the discharge to air of emissions from the production of heat for industrial processes, and support working towards the managed phase out of fossil fuels in energy and industry.

The emissions reduction plan (Action 11.4.1) proposes introducing nationally consistent policies and rules to phase out coal in processing heat and a resource consent process to reduce emissions from other fossil fuels. These policies, applied under the RMA, would include:

- banning new low- and medium-temperature coal boilers, and phasing out existing ones by 2037
- introducing a consent requirement for processing heat from non-coal devices
- requiring high-emission sites to prepare an emissions plan to reduce their emissions over time.

This action to create new national direction for industrial process heat is already underway.

The current National Policy Statement for Renewable Electricity Generation 2011 (Ministry for the Environment, 2011) promotes renewable electricity generation. The current National Policy Statement on Electricity Transmission (Ministry for the Environment, 2008) facilitates the operation, maintenance, upgrading and development of the electricity transmission network. The emissions reduction plan (Action 11.2.1) involves reviewing this national direction, including for small-scale generation, to accelerate generating renewable electricity. This action is already underway.

For more information on the energy and industry sector, refer to the emissions reduction plan, chapter 11.

Building and construction sector

The emissions reduction plan supports:

- using low-emission building materials
- using more energy-efficient built forms
- reducing waste from construction and demolition.

How RMA plans can support initiatives in the building and construction sector

- Support removing or reducing barriers that prevent buildings being constructed and operated with lower emissions. This includes supporting appropriate building typologies, reusing or repurposing existing buildings, and supporting energy-efficient building design.
- Support strategic and spatial plans that include infrastructure for minimising, recycling or reusing building, construction and deconstruction materials.

Current national direction and government policy statements also support reducing emissions in building and construction. For example, the NPS-UD, MDRS, GPS-HUD and GPS-LT all aim to increase the density of Aotearoa New Zealand's urban environment, as this can reduce greenhouse-gas emissions.

For more information on the building and construction sector, refer to the emissions reduction plan, chapter 12.

Agriculture sector

The emissions reduction plan supports reducing agricultural emissions through:

- pricing agricultural emissions by 2025
- measuring and managing emissions in agriculture
- accelerating mitigation technologies
- supporting producers to make changes and transition to lower emission land uses and systems
- enabling rural digital connectivity.

How RMA plans can support initiatives in the agriculture sector

- Support enabling adoption of mitigation technologies in farm practices.
- Support farm planning as a tool to manage emissions from agriculture, and use of land for productive and more sustainable purposes.
- Support enabling rural digital connectivity.

The National Policy Statement for Freshwater Management 2020 (Ministry for the Environment, 2020b) includes policies related to climate-change action that will support climate goals and have co-benefits for our freshwater and climate. For example, Policy 4 requires *freshwater is managed as part of New Zealand's integrated response to climate change*. Implementation of the NPS-FM will have climate co-benefits and support climate goals.

For more information on the agriculture sector, refer to the emissions reduction plan, chapter 13.

Forestry sector

The emissions reduction plan supports reducing emissions by:

- supporting afforestation
- encouraging the right forest outcomes in the right place, including encouraging indigenous forests
- maintaining existing forests
- supporting the forestry and wood-processing industries to get more value from lowcarbon products.

How RMA plans can support initiatives in the forestry sector

- Support enabling afforestation, strategically planning and managing to achieve the right type and scale of forests in the right places.
- Support encouraging native planting and the significant biodiversity benefits it brings.
- Support forestry management that improves climate change resilience.
- Support maintaining the extent of existing forests and their role as carbon sinks.
- Support enabling the forestry and wood processing industry to transition producing low carbon products.

The current National Environmental Standards for Plantation Forestry (Ministry for the Environment, 2017a) provides some guidance for the forestry sector. The emissions reduction plan Action 14.1.1 involves reviewing this national direction to identify whether we need more local control over the locations, and types and species of forests. This review is already underway.

Through Action 14.3.1, the Government will explore ways to reduce the deforestation of pre-1990 native forests.

For more information on the forestry sector, refer to the emissions reduction plan, chapter 14.

Waste sector

The emissions reduction plan supports reducing emissions from waste by:

- reducing the volume of organic, construction and demolition waste produced
- increasing the amount of waste diverted from landfills
- increasing the capture of gas from municipal landfills.

How RMA plans can support initiatives in the waste sector

- Support enabling outcomes consistent with the circular economy. This includes, enabling the reuse of materials in buildings or infrastructure and providing for sufficient waste collection space in urban development.
- Support enabling and strategically planning for the development of the waste facility infrastructure required, at pace and scale.
- Support managing landfills in terms of their disposal of organic waste, separation of materials, and landfill gas capture.

The Resource Management (National Environmental Standards for Air Quality) Regulations 2004 give direction on how to manage emissions from landfills (such as, large landfills must have a system to capture landfill gas). This national direction may need reviewing, to better align with these actions in the emissions reduction plan:

- investigate banning organic waste from landfills by 2030 (Action 15.4)
- require the capture of gas from municipal landfills (Action 15.5.1)
- investigate requirements for non-municipal landfills (Action 15.5.2).

For more information on the waste sector, refer to the emissions reduction plan, chapter 15.

Fluorinated gases sector

The emissions reduction plan supports reducing emissions from fluorinated gases by:

- shifting to alternative low-emission refrigerants
- prohibiting measures
- introducing product-stewardship schemes.

How RMA plans can support initiatives in the fluorinated gas sector

• Support efforts to reduce fluorinated gas emissions by enabling infrastructure required to reduce or remove fluorinated gas emissions.

For more information on the fluorinated gases sector, refer to the emissions reduction plan, chapter 16.

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