

BRF-3991: Secondary briefing to the incoming Ministers: Built Environment

Date submitted: 6 December 2023

Tracking number: BRF-3991

Security level: In-confidence

MfE priority: Non-urgent

Actions sought from ministers		
<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny Simmonds Minister for the Environment	Respond to recommendation	N/A
To Hon Chris Bishop Minister Responsible for RMA Reform	Respond to recommendation	N/A

Actions for Minister's Office staff
Forward this report to the office of Hon Chris Bishop, Minister of Housing and Infrastructure, and Hon Simeon Brown, Minister for Energy. Return the signed briefing to Ministry for the Environment (ministerials@mfe.govt.nz) and RMReform@mfe.govt.nz;

Appendices and attachments
Nil.

Key contacts at Ministry for the Environment			
Position	Name	Cell phone	First contact
General Manager	Liz Moncrieff	022 048 2314	
Deputy Secretary	Nadeine Dommissie	027 549 7733	✓

Minister's comments

Secondary briefing to the incoming Ministers: Built Environment

Key messages

1. We understand this Government has a number of priorities relating to the built environment, which we are ready to support you on.
2. Well-functioning built environments support the connection of people to housing, employment, and services. Our urban areas and the infrastructure that supports them, are critical components of a successful economy.
3. This briefing outlines key issues and opportunities, as well as responsibilities for the built environment for you and your Ministerial colleagues and the Ministry for the Environment (the Ministry).
4. The Ministry is responsible for the resource management system (RM system). The RM system includes several tools and levers that impact the built environment.
5. We understand your key priorities for the built environment in this portfolio area relate to housing, urban form, renewable energy and infrastructure. The Government's Coalition Agreements and policy priority documents signal proposed changes to ensure better coordination and identification of key infrastructure projects, more certainty and faster processes for infrastructure and ensuring sufficient development capacity in urban areas through the RM system.
6. There has been significant work in recent years to improve how the RM system supports the built environment. This includes requiring councils to plan better for urban growth both up and out through intensification and greenfield development. Positive trends are starting with increases in development capacity and diversity of housing types.
7. The built environment context continues to change quickly with high urban growth rates, infrastructure provision not keeping pace with growth, increased risks from natural hazards and the need to reduce carbon emissions.
8. We welcome opportunities to discuss a work programme for the Ministry on the built environment.

Recommendations

We recommend that you:

- a. **meet** with officials to discuss this briefing and your priorities for the built environment

Yes | No

Signatures



Nadeine Dommissse
Deputy Secretary, Environmental Management and Adaptation

Date
6 December 2023

Hon Penny Simmonds
Minister for the Environment

Date

Hon Chris Bishop
Minister for RMA Reform

Date

BRF-3991: Secondary briefing to the incoming Ministers: Built Environment

Purpose

1. The built environment is where the majority of New Zealanders live, and is critically important for our wellbeing and economic prosperity. We understand you have a number of policy priorities for the built environment relating to housing, urban form, renewable energy and infrastructure which we are ready to support you on.
2. This briefing sets out context, issues and opportunities and responsibilities for you as the Minister for the Environment (along with your colleagues, pending clarity on specific delegations) and the Ministry for the Environment's (the Ministry) for the built environment.

Overview

Background/context

3. Well-functioning built environments connect people to housing, employment, services, and social and cultural opportunities. Urban areas and infrastructure are critical to a successful economy.
4. Built environments need to be able to grow both up and out, and change within environmental limits, be resilient to natural hazards, help reduce emissions, and adapt to the impacts of climate change.
5. New Zealand is projected to grow by 1.2 million people over the next 30 years. Two-thirds of this growth is expected to occur in less than 3% of New Zealand's land area, concentrated in and around Auckland, Hamilton, Tauranga, Christchurch and Wellington¹. Of this growth 49% is predicted to be in Auckland.
6. It is widely acknowledged that the resource management system (RM system) has failed to effectively manage growth and infrastructure investment in our main urban areas.
7. Recently developed policy including the National Policy Statement on Urban Development 2020 (NPS-UD) and medium density residential standards

¹ New Zealand Infrastructure Commission (2022). Rautaki Hanganga o Aotearoa 2022 - 2052 New Zealand Infrastructure Strategy. Wellington: New Zealand Infrastructure Commission. [rautaki-hanganga-o-aotearoa.pdf \(umbraco.io\)](https://www.rautaki-hanganga-o-aotearoa.govt.nz/umbraco.io)

(MDRS) were enacted to address some of these issues. These instruments direct councils to provide for growth through intensification and greenfield development. Additionally, the NPS-UD requires strategic integration of land use and infrastructure planning.

Your priorities for housing, urban form, renewable energy and infrastructure

8. Changes to the systems and processes which shape our built environment are proposed in the Coalition Agreements and the Government's policy priority documents. We understand your priorities include:
 - a. unlock land for housing by requiring councils in major towns and cities to zone land for 30 years' worth of housing demand immediately, and to provide housing performance incentives for councils
 - b. to make the MDRS optional for councils, with the need for councils to ratify any use of the MDRS, including existing zones
 - c. consideration of sharing a portion of GST collected on new residential builds with councils
 - d. to amend the Building Act 2004 and the resource consent system to make it easier to build granny flats or other small structures up to 60 square metres requiring only an engineer's report
 - e. provision of public transport upgrades, a rapid transit network for Auckland, investment in roads to unlock housing growth, new Roads of National Significance and more infrastructure to support EVs
 - f. changes to the planning system to reduce resource consent processing time and costs for renewable energy generation, provide national direction on renewable electricity generation, and provision of electricity distribution and hydrogen production and distribution
 - g. establish a new National Infrastructure Agency with the intent to better coordinate funding and delivery of infrastructure. Other infrastructure policies include:
 - i. changes to the planning system to ensure resource consent decisions for major infrastructure projects (including for renewable energy generation) are issued within one year
 - ii. strategic infrastructure is prioritised to improve the resilience of heavy industry
 - iii. provision of infrastructure for fuel security
 - iv. the development of a 30-year infrastructure pipeline

- h. establish city and regional infrastructure deals, including use of Public Private Partnerships (PPP), tolling and value capture rating to fund infrastructure.

Role of the Ministry for the Environment, key levers, and other actors

- 9. The Ministry has a key role in supporting policy settings for the built environment. We administer specific tools but are also connected to wider legislative and funding work that influences outcomes in the built environment. A cross-government approach is key, and we work closely with other agencies and Crown entities including the Ministry for Housing and Urban Development (HUD), Ministry of Business, Innovation and Employment (MBIE), Treasury, and the New Zealand Infrastructure Commission (InfraCom).
- 10. The Ministry is the administering agency and has a stewardship role for the RM system covering the natural and built environment. The Ministry is responsible for developing regulations and national direction, and has a range of obligations in relation to Te Tiriti o Waitangi/the Treaty of Waitangi, Treaty settlement legislation, and other relationship agreements and accords. We often work in partnership with other agencies on national direction where it interacts with other government portfolios or areas of expertise.
- 11. The key Resource Management Act 1991 (RMA) national direction for the built environment is the:
 - a. NPS-UD
 - b. National Policy Statement for Renewable Electricity Generation (NPS-REG)
 - c. National Policy Statement on Electricity Transmission (NPS-ET)
 - d. National Environmental Standards for Electricity Transmission Activities (NES-ET)
 - e. National Environmental Standards for Telecommunication Facilities (NES-TF)
 - f. National Environmental Standards for Air Quality (NES-AQ)
 - g. National Planning Standards particularly in relation to the zone framework
 - h. National Policy Statement for Freshwater Management (NPS-FM) and National Environmental Standards for Freshwater (NES-F)
 - i. National Environmental Standards for Sources of Drinking Water
 - j. National Policy Statement for Highly Productive Land (NPS-HPL).

12. As a steward of the RM system, the Ministry's work in the built environment can involve:
- a. preparing national direction, including new legislation
 - b. inputting into new legislation that affects the built environment
 - c. oversight of implementation, monitoring and evaluation
 - d. supporting the use and development of non-regulatory policy documents such as the Urban Design Protocol
 - e. advising on statutory functions such as applications for requiring authority status and streamlined planning processes
 - f. advising on resource consenting pathways which require Ministerial decisions
 - g. advising on interactions between the RM system and other potential legislation or frameworks under development.
13. In 2021 the RMA was amended to introduce the MDRS. It requires 15 councils (referred to as Tier 1 Councils²) to undertake an intensification streamlined planning process to bring the NPS-UD and the MDRS into their district plans. Councils were to notify the plan changes by August 2022. Five councils have completed this process, with the remaining 10 due to complete by December 2025.
14. Responsibility for overseeing implementation of the NPS-UD and MDRS is shared between the Ministry and HUD. Responsibility for the NPS-REG, NPS-ET, NES-ET and NES-TF is shared with MBIE. The NPS-HPL and NPS-FM were developed with the Ministry for Primary Industries. The Ministry is responsible for overseeing implementation of the NES-AQ.

Role of others

15. Local Government has important statutory responsibilities under the RMA. This includes the development, implementation and enforcement of regional policy statements and regional plans by regional councils, and district plans by territorial authorities. The Ministry works closely with councils across New Zealand to support the implementation of the NPS-UD and MDRS.

² Tier 1 Councils are Auckland Council; Hamilton, Waikato Regional Council, Waipa, and Waikato District Councils; Tauranga City Council, Bay of Plenty Regional Council, and Western Bay of Plenty District Council; Wellington City Council, Greater Wellington Regional Council, Kapiti Coast District Council, Porirua, Hutt and Upper Hutt City Councils; and Christchurch City Council, Environment Canterbury, Selwyn and Waimakariri District Councils. Rotorua District Council has also opted to be treated as a Tier 1 Council.

16. Iwi/Māori (including post-settlement governance entities (PSGEs)), infrastructure providers, and the development sector are also critical partners. We engage directly with these parties, either solely or in partnership with other agencies.

Other key levers

17. There are many other levers across government that impact on outcomes in the built environment. They include our regulatory responses under the Building Act 2004, and the Crown's input into decision-making processes and functions undertaken by road controlling authorities under the Land Transport Management Act 2003 and by councils under the Local Government Act 2002.
18. The Urban Development Act 2020 (UDA) is a significant lever to enable increased housing supply. The UDA enables Kāinga Ora to undertake comprehensive, large-scale, and timely urban development that delivers a range of economic, social and environmental outcomes. The key mechanism for achieving this is through a comprehensive process for the planning, funding, and delivery of complex urban development projects – called Specified Development Projects. There have not been any Special Development Projects established, although two³ are at a due diligence stage.
19. The government's funding and supply of physical and social infrastructure is another significant built environment lever. The Infrastructure Funding and Financing Act 2020 (IFF) provides one way to fund and finance infrastructure projects and support housing and development. The IFF has been used twice: for the Tauranga Transport Systems Plan (a collection of 13 transport projects) and for the Wellington Sludge Minimisation Facility. We support HUD and other agencies with policy advice relating to the IFF and other innovative infrastructure funding and financing solutions including value capture tools and city deals. This includes our work with the Ministry of Transport and HUD on value capture options for transit-oriented development in Auckland.
20. The Government's taxation system and supply of public housing are two other levers that drive outcomes in the built environment. There are also levers outside of the government that have strong effects on the built environment such as loans/mortgages and insurance.

Ministerial responsibilities for the built environment

21. There are several responsibilities and powers in the RM system that relate to the built environment, including making decisions about national direction, referrals for Proposals of National Significance and fast-track consenting, system monitoring, and approval of the intensification planning instruments.

³ Porirua Northern Growth Area and Tauranga Western Corridor.

Key issues and opportunities

Planning for growth

22. There are housing supply shortages in many parts of the country, particularly in our main urban centres. Existing housing markets are often unaffordable and dominated by stand-alone, three to four bedroom houses. These housing options are not meeting an increasing demand for a greater range of housing typologies across urban areas.
23. The National-led government introduced the National Policy Statement for Urban Development Capacity 2017 (NPS-UDC) which focussed on the provision of 'sufficient development capacity' and associated monitoring and strategic planning requirements. The NPS-UD 2020 carried over concepts in the NPS-UDC relating to development capacity and provided further direction on intensification and well-functioning urban development.
24. The subsequent MDRS was designed to be directive and facilitate a fast and significant increase in development capacity. It is also intended to assist in facilitating a shift in public opinion to be more accepting of intensification and see its role in addressing housing affordability and climate change challenges.
25. The implementation of these policies is ongoing. While we are seeing positive trends emerge, the fuller impact will be more visible in coming years as all plan changes are completed. Building consents data illustrates increasing diversity in the types of housing being consented (apartments, townhouses and standalone houses), particularly since the NPS-UD came into effect in 2020.
26. The 'one size fits all' approach of the MDRS has been contentious at the local level, with some communities expressing strong opposition.
27. The dramatic increase in plan enabled capacity facilitated by MDRS has exacerbated infrastructure deficient challenges in some places. This policy has created a greater need for a wider range of flexible, practical methods to encourage the integration of land use and infrastructure decisions and address infrastructure deficits.
28. The NPS-UD and MDRS enable councils to use 'qualifying matters' to exclude development from an area for reasons such as indigenous biodiversity or natural hazard risk. We noted however significant variability in how 'qualifying matters' are being used to exclude areas from intensification. In some places, the status quo is being retained, often in the areas that provide the best economic opportunity for intensification.
29. Officials acknowledge the bluntness of the MDRS, given its 'one size fits all' approach and that it has reduced the focus on 'getting intensification right' in areas that are the most accessible. The timeframes for implementation have also been particularly challenging for many councils.

30. We have been working with HUD to investigate possible amendments to add nuance and flexibility to these policies and seek a meeting with you to support more detailed written policy advice.

Supporting the delivery of infrastructure

31. The timely and appropriate provision of infrastructure is critical for built environments. As well as supporting future growth, well planned infrastructure can enable reductions in greenhouse gas emissions and enhance water quality. However, infrastructure planning and delivery is often fragmented, underfunded and misaligned with urban growth.
32. An inability to plan, fund and deliver infrastructure is a key obstacle to enabling urban growth in both brownfield and greenfield areas.
33. Strategic planning is vital for improving the delivery of infrastructure due to its long-term approach to identifying infrastructure need and prioritising investment. Mechanisms to encourage better strategic planning have been enabled including Urban Growth Partnerships and Future Development Strategies under the NPS-UD. However, due to strategic/spatial planning processes having limited legal weight, they continue to lack effectiveness and do not always flow into planning and investment decisions.
34. Within the RM system, the key infrastructure issues are:
 - a. increasing the supply of renewable energy and its transmission to meet national targets through strong national direction
 - b. integrating land use and infrastructure planning, sequencing, and investment, so infrastructure matters are considered for both greenfield and infill development
 - c. protecting infrastructure corridors and sites from incompatible activities and ensure appropriate planning rules for infrastructure provision
 - d. improving the resilience of infrastructure to climate change and natural hazards.
35. Getting regulatory settings right for renewable electricity generation, transmission and distribution could significantly contribute towards ensuring that there will be adequate supply, at the right pace, to electrify the economy. The Ministry has been progressing proposed amendments to the National Policy Statements for Renewable Electricity Generation and Electricity Transmission with MBIE. The development of infrastructure will invariably have environmental impacts, so the challenge is to ensure renewable energy infrastructure can be developed, whilst recognising environmental outcomes. Accordingly, the current proposals seek to address challenges to consenting renewable electricity generation and electricity transmission in areas of high ecological or cultural value, including in the coastal environment (in collaboration with the Department

of Conservation (DOC)). We will provide advice to you on these proposals and how they could be expanded to have a greater impact, including if they could be used to further accelerate renewable generation.

36. There are opportunities to improve the RM system to address the challenges for planning, funding and consenting infrastructure projects. To address some infrastructure challenges the Ministry has been working with InfraCom on opportunities to create consistent rules and standards for infrastructure development, maintenance and upgrading.
37. There is an opportunity to standardise rules and conditions for renewable electricity generation and transmission through the development of national environmental standards. These could assist with the objective to rapidly increase the pace and scale of renewable electricity generation, transmission and distribution.
38. The Ministry notes the Government's Coalition Agreements and policy priority documents signal the intention to repeal the Natural and Built Environment Act 2023 (NBEA) and the Spatial Planning Act 2023 (SPA), and to introduce a fast-track consenting regime. The Ministry is also working to ensure a fast-track consenting process continues to be available for housing and infrastructure in the RM system⁴. There are a range of options to provide for fast-track consenting, if the NBEA is repealed.

⁴ The Covid-19 Recovery (Fast Track Consenting Act) 2020 has been replaced by provisions for a fast track consenting process in the Natural and Built Environment Act 2023 (NBEA). The NBEA fast-track consenting process came into force on 20 August 2023. There are a range of options of what legislative provision could be proposed for fast-track consenting, if the NBEA is repealed.

Enabling quality urban environments

39. The Ministry considers there are opportunities for better outcomes in the built environment through incentivising and encouraging urban design, and quality built environments.
40. The Parliamentary Commissioner for the Environment (PCE)⁵ has identified urban trees and green spaces as a significant component for ensuring quality urban environments. Prior regulatory responses under the RMA were costly and ineffective; we would be happy to advance fresh thinking and policy approaches in this area if appropriate.
41. The 2005 New Zealand Urban Design Protocol records the government's commitment to quality design in New Zealand's urban environment. It promotes the importance of the design of buildings, streets, and public spaces to people's quality of life, the economic viability of towns and cities and the enhancement of the natural environment within urban area. An update and refresh of the Urban Design Protocol could provide an effective, non-statutory tool to support high quality urban development and coordinate across the housing, environmental and infrastructure policies.
42. There are opportunities to advance tools and direction on nature-based solutions, especially for management of urban stormwater. In addition to the water quality benefits derived from "green infrastructure", better recognition of the way nature provides solutions to mitigate severe weather events can contribute to improving resilience of communities and adaption to climate change. We will continue to consider opportunities for including green infrastructure when appropriate in general work to better enable infrastructure.
43. There is an increasing demand for more flexible approaches to the way land-uses are controlled. Mixed use areas or zones in cities provide opportunities for different forms of residential living with the convenience of having a range of health, education and commercial services in close proximity to where people live. Enabling mixed uses along major transport corridors would help reduce carbon emissions through less reliance on cars, whilst promoting more opportunities for healthier lifestyles through creating walkable suburbs. We will consider how this can fit in with the wider built environment and housing work.

⁵ Parliamentary Commissioner for the Environment. (2023). Are we building harder, hotter cities? The vital importance of urban green spaces ([report-are-we-building-harder-hotter-cities-the-vital-importance-of-urban-green-spaces.pdf](https://www.pce.parliament.nz/report-are-we-building-harder-hotter-cities-the-vital-importance-of-urban-green-spaces.pdf) ([pce.parliament.nz](https://www.pce.parliament.nz))).

Reducing risks of natural hazards

44. New Zealand is increasingly at risk from a range of natural hazards, including earthquakes, flooding, and landslips. Severe weather events are becoming more frequent due to climate change.
45. In many parts of New Zealand, housing and infrastructure are affected by the risks of natural hazards. Developing in areas at high risk from natural hazards increases risk to human life, community wellbeing, property, infrastructure and may lead to adverse effects on the environment. Recovering from natural hazard events when they occur is costly. The insurance industry has asked central government to take action to reduce the amount of new development going ahead in flood prone areas to address the increasing insurance costs.
46. Under the RMA, the management of significant risks of natural hazards is a matter of national importance and local government have functions relating to the control of land to avoid or mitigate natural hazards. There is currently very little national direction providing guidance on decision-making where natural hazard risk is a concern⁶ and the information available to support decisions about natural hazard risk are inadequate. There is an opportunity to provide stronger direction to ensure better consistency and overall management of natural hazard risk.
47. We have begun developing national direction for local government consideration of natural hazards in a phased approach. Phase one is a proposed national policy statement (NPS) which introduces a framework for how local government considers natural hazard risk when making decisions on new development and encourages local government to avoid development in areas of intolerable risk from natural hazards. Phase two proposes to support local government to identify natural hazard risk in a consistent and rigorous way.
48. The phase one NPS has been put to public consultation, which closed on 20th November 2023.
49. Based solely from our early conversations with stakeholders, we understand that the local government, banking and insurance sectors strongly support the provision of direction from central government to improve and standardise an approach to identification and management of risks from natural hazards under the RM system. Post settlement governance entities (PSGEs) and other Māori entities have mixed views. Most were supportive of stronger direction from central government and better information on natural hazard risk to support their own decision making but they sought more detail on how Māori will be involved

⁶There are NZCPS policies dealing with management of hazards in the coastal environment.

in decision-making as part of its Te Tiriti o Waitangi/Treaty of Waitangi obligations.

50. We will brief you on the work to date, including a summary of feedback on the proposed national direction, and seek your direction on the next steps for this work.

Improving air quality

51. Air quality issues in New Zealand predominantly occur in urban environments, largely caused by domestic fires, transport emissions and industrial activities.
52. The NES-AQ sets ambient standards for particulate matter, nitrogen dioxide, sulphur dioxide, carbon monoxide and ozone, prohibits or controls activities that release high levels of dioxins, and includes standards for domestic wood burners and landfill emissions. The NES-AQ is implemented by regional councils, which can implement more stringent provisions if they choose to.
53. The latest Health and Air Pollution in New Zealand study (HAPINZ 3.0)⁷ highlighted the serious health impacts associated with air pollution in New Zealand, particularly PM_{2.5} and nitrogen dioxide (NO₂) from domestic home heating and vehicle emissions. The report found that air pollution contributes to the premature deaths of more than 3300 New Zealanders every year and a social cost of more than \$15.6 billion per annum.
54. There are opportunities to bring air quality standards better in line with international best practice and help to address the adverse health and social effects of air pollution. An opportunity also exists to better align air quality provisions and GHG emission reductions, enhancing the co-benefits between them. The standards would also benefit from amendments to address implementation challenges around the exceptional circumstances provision.
55. The Ministry consulted on amendments to the NES-AQ in 2020. Those amendments focused on a new PM_{2.5} standard, strengthening solid fuel burner standards and regulating mercury emissions (to align with the Minamata Convention on Mercury). The amendments (excluding Minamata Conventions updates) were put on hold in 2021 awaiting an update to the WHO guidelines which created stricter ambient standards than those consulted upon in 2020. Air quality monitoring technology has also advanced since the NES-AQ were last amended. There is need to update the regulations to reflect the current best practice (e.g. Schedule 2). This need also applies to the current authorisation

⁷ Kuschel et al (2022). *Health and air pollution in New Zealand 2016 (HAPINZ 3.0): Volume 1 – Finding and implications*. Report prepared by G Kuschel, J Metcalfe, S Sridhar, P Davy, K Hastings, K Mason, T Denne, J Berentson-Shaw, S Bell, S Hales, J Atkinson and A Woodward for Ministry for the Environment, Ministry of Health, Te Manatū Waka Ministry of Transport and Waka Kotahi NZ Transport Agency, March 2022.

process for solid fuel burners. Technology and testing standards have moved on and need revising.

56. New Zealand signed the Minamata Convention on Mercury in 2013 but the NES-AQ has not yet been amended to align with the convention. Amendments needed to ratify the Minamata Convention reached the drafting stage in May 2023 but have not been completed. We will provide advice to you on this work.

Impacts on Treaty settlements

57. The Crown has obligations relating to the matters set out in this paper in numerous Treaty settlements, which it has committed to upholding. These include specific commitments to engage with PSGEs on relevant policy matters under relationship agreements and accords, including certain actions when preparing national direction such as national policy statements.
58. Changes to the way the RM system operates are therefore likely to impact Treaty settlements, as well as other arrangements where applicable (such as marine and coastal area legislation which provides for the exercise of customary rights in the common marine and coastal area, including consenting processes).
59. Upholding settlements in the context of relevant changes requires engagement and agreement with relevant PSGEs at the start of the policy process and sufficient time for that to occur. The nature and outcome of the engagement may impact delivery timeframes, depending on the impact of the changes. We will provide you advice on these matters throughout the policy development process.

Māori rights and interests

60. In addition to Treaty settlement obligations, our work on the built environment intersects with Māori rights and interests in various ways, including (but not limited to) Māori owned land and interests in resource management processes, national direction, planning, consenting, and monitoring⁸ under the RM system.
61. Māori have a significant role in housing and land development, including the provision of papakāinga, commercial development and land ownership. Iwi providers have played a lead role in the provision of housing, including temporary housing in response to recent severe weather events.

⁸ Section 24 of the RMA sets out the Minister for the Environment's functions, including monitoring of the effect and implementation of the RMA (including any regulations in force under it), national policy statements, national planning standards, and water conservation orders.

- 62. There are opportunities to support the development of Māori land for housing and other purposes. This could involve addressing planning and consenting barriers on Māori land.
- 63. Māori land is disproportionately at risk from natural hazards, so policy work in this area includes engagement with Māori, including Māori landowners, as part of the proposed National Policy Statement on Natural Hazards decision making.
- 64. Any built environment proposals that impact on Māori rights and interests requires engagement with Māori, as part of meeting our Te Tiriti o Waitangi/Treaty of Waitangi obligations.

Next steps

- 65. Officials are keen to meet to discuss work programme and priorities. Further briefings on the built environment will follow.



Briefing: Talking points for Cabinet discussion replacing the National Policy Statement for Freshwater 2020

Date submitted: 8/12/2023

Tracking number: MfE: BRF-4013, MPI: B23-0728

Security level: Policy and Privacy, in Confidence

MfE priority: Urgent

Actions sought from Ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Chris BISHOP Minister Responsible for RMA Reform Hon Todd MCCLAY Minister of Agriculture Hon Penny SIMMONDS Minister for the Environment	Note the attached talking points	n/a

Actions for Minister's office staff

Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments

- Appendix 1: Talking points for Cabinet discussion on Replacing the National Policy Statement for Freshwater 2020

Key contacts at Ministry for the Environment

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Minister's comments

Talking points for Cabinet discussion replacing the National Policy Statement for Freshwater 2020

Key messages

1. This briefing provides talking points for Cabinet's discussion on the paper *Replacing the National Policy Statement for Freshwater 2020, and addressing its implementation in the interim*. Talking points are provided in Appendix 1.

Recommendations

We recommend that you:

- a. **note** the attached talking points

Signatures

This briefing has been electronically signed
by Hayden Johnston

Hayden Johnston
General Manager
Natural Environment Policy - MfE
8/12/2023


Charlotte Denny
Director (MPI)
Natural Resources Policy - MPI
8/12/2023

Hon Chris BISHOP
Minister Responsible for RMA Reform
Date

Hon Todd MCCLAY
Minister of Agriculture
Date

Hon Penny SIMMONDS
Minister for the Environment
Date

Appendix 1: Talking points for Cabinet discussion on *Replacing the National Policy Statement for Freshwater 2020, and addressing its implementation in the interim*

Context

1. The Coalition Government Agreements specifically commit to replace the National Policy Statement for Freshwater Management 2020 (NPS-FM).
2. We want to rebalance Te Mana o te Wai to better reflect the interests of all water users.
3. Councils are currently implementing the NPS-FM and have a statutory deadline to notify freshwater planning instruments no later than 31 December 2024. We propose to extend this deadline.
4. The Coalition Government is committed to improving freshwater quality for the benefit of all New Zealanders.
5. We are concerned that current NPS-FM is not correctly balanced and will not create the outcomes New Zealanders expect, including environmental, economic, and social outcomes.
6. The NPS-FM is an important driver of freshwater management in New Zealand and we propose to initiate a work programme to replace the NPS-FM in 2024 to improve freshwater health and support other key outcomes that are important to New Zealanders to be achieved.
7. We also propose interim changes that give councils the option to cease implementation of the current NPS-FM, and that clarify how the current NPS-FM should be applied to consenting decisions.

Replacing the NPS-FM

8. We will use the full statutory process for amending national direction to replace the NPS-FM in this term of Government. This is set out in the Resource Management Act 1991 (RMA).
9. This is a substantial piece of work that requires engagement with stakeholders and iwi/hapū/Māori, including under the terms of some Treaty settlements. Officials advise it is likely to take 18-24 months.
10. This in line with phase two of the Government's three-phase programme – looking at the full suite of national direction made under the RMA to ensure it is fit for purpose.

Extending the statutory deadline and clarifying the application of the NPS-FM on consenting decisions

11. We want councils to pause their implementation of the current NPS-FM so we can develop an enduring, pragmatic and sensible approach to freshwater management.
12. Until the NPS-FM is replaced, our view is that councils continuing to implement the existing NPS-FM would waste resources and the combined effort of councils and communities.
13. We also have concerns about how the NPS-FM is being applied to consenting decisions. In particular:
 - i some councils appear to be placing the onus on applicants to demonstrate how their proposed activity adheres to the hierarchy of obligations for freshwater (consistent with the description of Te Mana o te Wai)
 - ii some councils appear to be applying the hierarchy of obligations in Te Mana o te Wai in ways that will not result in the outcomes that local communities and most New Zealanders seek and consider reasonable.
14. To address these issues, we propose to:
 - i immediately extend the statutory deadline by three years to 31 December 2027. This will give us time to replace the NPS-FM and then for councils to implement a new policy;
 - ii progress changes that clarify for councils and consent applicants how they should apply and consider the hierarchy of obligations contained in the Te Mana o te Wai provisions of the NPS-FM;
 - iii communicate to councils and wider interests our intended way forward, including that we have initiated a process to replace the NPS-FM, beginning in 2024.

Next steps

15. We recommend changing the statutory deadline before Christmas, through the NBA and SPA repeal Bill as this is a simple change in terms of drafting.
16. Following this process will by-pass the select committee and public consultation phase and does not allow time to engage with partners, including with Post Settlement Governance Entities with which the Crown has obligations to engage on freshwater policy changes under Treaty settlements.
17. However, we think it is a sensible amendment to avoid councils, iwi/hapū/Māori, communities and businesses wasting significant resources and effort implementing national direction that will be replaced.

18. We also propose to progress changes to the application of the hierarchy of obligations contained in the Te Mana o te Wai provisions of the NPS-FM to consent decisions. We would like to do that through the Fast Track Consenting Bill, at this stage. Targeted engagement on this proposal would be possible.
19. The process to review and replace the NPS-FM will provide substantial opportunities for engagement with iwi/hapū/Māori and public consultation.
20. We will come back to Cabinet early in the new year about our intended process for replacing the NPS-FM, and seek further Cabinet decisions on timing, process, and iwi/hapū/Māori engagement.



Briefing: Freshwater rights litigation update

Date submitted: 13 December 2023

Tracking number: BRF-3996

Security level: Legally-privileged

MfE priority: Not Urgent

Actions sought from ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Chris BISHOP Minister Responsible for RMA Reform	Note the content of this briefing	N/A
CC Hon Penny SIMMONDS Minister for the Environment		

Actions for Minister's office staff

Return the signed briefing to Ministry for the Environment (ministerials@mfe.govt.nz and RM.Reform@mfe.govt.nz — please send both hard *and* soft copies to ensure we meet our public record obligations.

Appendices and attachments

1. Appendix 1: Overview of proceedings and next steps
2. Appendix 2: Forward timetable for freshwater rights litigation proceedings

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Rosie Goble		
Responsible Manager	Lucy Bolton		
General Manager - Te Tiriti and Te Ao Māori	Clare Maihi	021 417 676	✓

Minister's comments

Freshwater rights litigation update

Key messages

1. This briefing provides an update on freshwater litigation proceedings that relate to the Ministry for the Environment (Ministry) work programme.
2. This includes an update on the National Freshwater and Geothermal Resources Inquiry (Wai 2358), which the Waitangi Tribunal is currently conducting.
3. A table is appended with a brief description of the proceedings, next steps, and Ministry comment.

Recommendations

We recommend that you:

- a. **note** the content of this briefing

Signatures



Clare Maihi
General Manager
Te Tiriti me Te Ao Māori
13 December 2023

Hon Chris Bishop
Minister Responsible for RMA reform
Date

Freshwater rights litigation update

Purpose

1. The purpose of this briefing is to provide you with background regarding the various freshwater rights litigation proceedings that relate to the Ministry's work programme.
2. On 11 December 2023, Minister Bishop requested this information to support his understanding of freshwater rights and interests, after receiving an overview briefing on the topic.¹
3. The Waitangi Tribunal is also currently conducting stage 3 of its National Freshwater and Geothermal Resources Inquiry (Wai 2358). The scope of the claims in that inquiry includes similar matters to those being heard before the courts, therefore background to that inquiry is included in this briefing.

Background

4. Various Māori groups have filed claims against the Crown for rights and interests in freshwater resources, and the Crown's breach of its duties relating to those rights and interests.
5. Important context to these claims is that in 2019 the Waitangi Tribunal released its Stage 2 Report on the National Freshwater and Geothermal Resources Claims. Among other findings and recommendations, the Tribunal noted:²

It may now be necessary for a test case to be brought before the courts on whether native title in fresh water (as a component of an indivisible freshwater taonga) exists as a matter of New Zealand common law and has not been extinguished.

6. Proceedings include (see appendix 1):

9(2)(h)



¹ BRF-3974 Overview of Māori freshwater rights and interests.

² Waitangi Tribunal (2019) *The Stage 2 Report on the National Freshwater and Geothermal Resources Claims*, p 564.

9(2)(h)



7. Simultaneously, the Waitangi Tribunal has continued its inquiry into freshwater and geothermal resources claims under the National Freshwater and Geothermal Resources Inquiry Tribunal (Wai 2358). This inquiry is now in its third stage, with a focus on geothermal resources.

Analysis and further information

Current freshwater rights litigation proceedings

8. 9(2)(h)



9.

Recently completed freshwater rights litigation proceeding

10. In June 2023, the Supreme Court declined an application by Te Whānau a Kai Trust to appeal a decision by the High Court relating to freshwater planning provisions. 9(2)(h)
- 

Wetlands litigation

11. Two judicial review proceedings have been filed in the High Court against the Minister for the Environment that challenge the National Policy Statement for Freshwater Management and Resource Management (National Environmental Standards for Freshwater) Regulations 2020.⁵ These claim unlawfulness in relation to regulations for freshwater management, but are not discussed further

³ 9(2)(h)



⁴ 9(2)(h)



⁵ Te Rūnanga o Ngāti Waewae & Ors v ME (NPSIB, NPSFM & NES-F); Royal Forest and Bird Protection Society Inc v ME (NPS-FM & NES-F).

in this briefing because they do not relate substantively to the freshwater rights and interests work programme.

The National Freshwater and Geothermal Resources Inquiry (Wai 2358)

12. The Waitangi Tribunal is a standing commission of inquiry that makes recommendations on claims brought by Māori relating to legislation, policies, actions, or omissions of the Crown that are alleged to breach the promises made in the Treaty of Waitangi.
13. The Wai 2358 inquiry arose from two claims to the Waitangi Tribunal about Māori proprietary rights in freshwater bodies and geothermal resources. The inquiry was divided into stages, with the first, regarding the Crown's proposed sale of shares in state-owned power companies, heard in 2012 under urgency. The second stage of the inquiry considered the freshwater reform programme, with hearings from November 2016 – November 2018, and the Tribunal's report released in 2019. The third stage has now commenced, with a focus on geothermal resources. A hearing week is scheduled for 17 – 21 June 2024.
14. Claimants and interested parties in this inquiry have interests in geothermal resources located throughout the country.⁶
15. While this claim is not technically part of the Waitangi Tribunal's kaupapa inquiries process due to its commencement prior to the establishment of that programme, the nature of the claims it is considering mean that it is treated identically to kaupapa inquiries. The Ministry for the Environment is the lead agency for Wai 2358.
16. In line with cabinet office circular CO (19) 3, there is a requirement for Ministers leading kaupapa inquiries to report to the Cabinet Māori Crown Relations: Te Arawhiti Committee (MCR) to seek Cabinet agreement on their proposed approach to those inquiries.⁷
17. Officials will provide further advice on Wai 2358 in the new year, including background information on geothermal rights and interests and the role of environment ministers.

Next steps

18. The next steps for each of these proceedings are listed in the attached forward timetable (Appendix 2).

⁶ Waitangi Tribunal (2023) *Appendix A: Updated table of interested parties for Stage Three of the National Freshwater and Geothermal Resources Inquiry*, Wai 2358, #2.6.95(a).

⁷ CO (19) 3: Better Co-ordination of Contemporary Treaty of Waitangi Issues, paras [16] – [19].

19. Officials will draft further advice regarding Wai 2358, including background information on geothermal rights and interests and the role of environment ministers, to be provided in the new year.

Appendices

Please see appendices as attached via email to the Minister's office.

Appendix 1 & Appendix 2 withheld under section 9(2)(h) of the Act



Cabinet Office

CO (19) 3
(updated 9 October
2019)

Circular

2 April 2019

Intended for All Ministers
All Chief Executives
All Senior Private Secretaries
All Private Secretaries
All officials involved in contemporary Treaty of Waitangi issues

Better Co-ordination of Contemporary Treaty of Waitangi Issues

Introduction

- 1 This circular sets out guidelines and requirements agreed by Cabinet for Ministers and departments involved in contemporary Treaty of Waitangi issues, including:
 - 1.1 processes for appointing lead Ministers and agencies for contemporary Treaty of Waitangi-related proceedings in the Waitangi Tribunal or Courts, including kaupapa inquiries;
 - 1.2 a requirement for Ministers leading kaupapa inquiries to report to the Cabinet Māori Crown Relations: Te Arawhiti Committee (MCR) to seek Cabinet agreement on their proposed approach to those inquiries; and
 - 1.3 a requirement for Ministers to seek agreement from MCR before they (or their agencies) make decisions, or enter into formal discussions with Māori, about significant changes to policy, regulation, or public services that:
 - 1.3.1 respond to a contemporary Treaty of Waitangi issue; or
 - 1.3.2 are intended to specifically improve outcomes for Māori.
- 2 Nothing in this circular takes away from the Cabinet Directions for the Conduct of Crown Legal Business [CO (16) 2].

Background

- 3 As the historical Treaty of Waitangi settlement process concludes, conversations between Māori and the Crown around contemporary Treaty of Waitangi issues will become more frequent. This creates a significant opportunity for the Crown to engage positively with Māori and understand how it can improve the effectiveness of Crown policy and actions.

- 4 Cabinet has agreed to a number of mechanisms to help coordinate the Crown's responses to contemporary issues in order to take advantage of these opportunities, which are set out in this circular.

Contemporary Treaty of Waitangi issues

- 5 Contemporary Treaty of Waitangi issues are not limited to situations that have escalated into formal claims lodged with the Waitangi Tribunal or the courts. They include any situation where the Treaty partners are exploring whether Crown actions, omissions or policies are consistent with the principles of the Treaty of Waitangi.
- 6 Contemporary Treaty of Waitangi issues, in contrast to historical issues, are those relating to acts or omissions of the Crown after 21 September 1992.
- 7 All agencies should be proactive in ensuring their policy, regulatory, and service delivery functions are consistent with the Treaty of Waitangi.
- 8 In general, contemporary Treaty of Waitangi issues and claims should continue to 'lie where they fall' in terms of their subject matter and which Ministers and agencies have responsibility for the Crown policies or practices in question.

Kaupapa inquiries

- 9 The Waitangi Tribunal is conducting a series of inquiries into issues of pan-Māori or national significance; these are called the 'kaupapa inquiries'. Although they can cover both historical and contemporary issues, many of the inquiries are likely to have a significant contemporary policy aspect.
- 10 These stand apart from the regional district inquiries, and any discrete contemporary claims the Tribunal might consider.
- 11 The inquiry topics listed below are those set out by the Chairperson of the Waitangi Tribunal in the 2015 memorandum establishing the kaupapa inquiries process.

Kaupapa Inquiry Topics

- Māori military veterans
- Health services and outcomes
- Marine and Coastal Area (Takutai Moana) Act
- Mana Wāhine
- Housing Policy and Services
- Mana Tāne
- Constitution, self- government, electoral system
- Education services and outcomes
- Identity and culture
- Natural resources and environmental management
- Social services, social development
- Economic development
- Justice system
- Citizenship rights and equality

Process for appointing lead Ministers and agencies for kaupapa inquiries

- 12 Cabinet has agreed to a process and considerations for determining the lead Ministers and agencies for kaupapa inquiries [MCR-18-MIN-0003].
- 13 Lead agencies will be responsible for instructing the Crown Law Office (CLO) during the inquiry and leading the policy response to inquiry findings.
- 14 CLO will make an initial determination of the lead agency(s), as they are responsible for the conduct of Crown litigation¹ and they have experience of how inquiries are likely to evolve and which agencies will be best placed to respond.
- 15 Specifically, the process for appointing lead agencies and Ministers is:
 - 15.1 CLO make an initial determination as to the lead agency (or joint lead agencies) for kaupapa inquiries, taking into account the agencies administering or responsible for the legislation, policy, or Crown actions/omissions most relevant to the proceedings; then
 - 15.2 the Office for Māori Crown Relations - Te Arawhiti and CLO (in consultation with Te Puni Kōkiri and the proposed lead agencies) report jointly to the Minister for Māori Crown Relations: Te Arawhiti, the Minister for Māori Development, and the proposed lead Minister(s) for confirmation of this determination.

Reporting requirements for lead Ministers and agencies of kaupapa inquiries

- 16 Lead Minister(s) for kaupapa inquiries should report to MCR early in the preparation phase of an inquiry to seek approval to a Crown approach.
- 17 The exact timing of this report to MCR will be subject to the specific circumstances of the inquiry. The report should occur once it is clear what issues the inquiry is likely to focus on, but before the Crown is required to make significant or strategic decisions that could impact on the process or outcome of the inquiry.
- 18 These reports should include all information necessary for Ministers to make an informed decision about the Crown's approach, which could include (but is not limited to):
 - 18.1 the issues the inquiry is likely to focus on, and the views the claimants are likely to adopt about these issues and their aspirations for what the Crown should do in response;
 - 18.2 an assessment of the current and proposed Crown policy, regulatory, or service interventions relevant to the issues;
 - 18.3 an assessment of the consistency of those interventions with the Treaty of Waitangi, and the broad scope to change those interventions to better respond to the issues raised, taking into account the public interest and the interests of non-Māori; and

¹ See for example CO (16) 2 Annex 1, paragraphs 2 and 9.1.3 where the Attorney-General and the Solicitor-General are noted as having constitutional responsibility for: determining the Crown's view of what the law is; ensuring that the Crown's litigation is properly conducted; and confirming that Treaty of Waitangi and Crown/Māori relationship matters are a core Crown legal matter.

18.4 a broad proposal as to how the Crown should approach the inquiry given all of the above considerations (including any relevant principles, bottom lines, significant choices, early Crown acknowledgements, alignment with current or pending reforms and limitations).

19 MCR can then consider the mandate it wishes to give the lead agencies around the Crown's approach, and any further reports it would like to receive as the inquiry progresses.

Costs of kaupapa inquiries

20 In general, agencies will be expected to absorb the costs of participating in kaupapa inquiries within baselines, as they represent the business-as-usual activity of ensuring policy is consistent with the Treaty of Waitangi.

21 Where absorbing costs within baselines is considered unmanageable, a case for additional funding can be put to Ministers during the lead agency appointment process or when reporting to MCR, for consideration through the Budget process.

Other Matters

Process for appointing lead Ministers and agencies for formal contemporary Treaty of Waitangi proceedings in the Waitangi Tribunal or Courts

22 CLO will make an initial determination of the lead agency (or joint lead agencies) for significant contemporary Tribunal proceedings and Court actions on contemporary Treaty of Waitangi issues, taking into account:

22.1 the agencies administering or responsible for the legislation, policy, or Crown actions/omissions most relevant to the proceedings; or

22.2 (for Court actions) which Ministers of the Crown are defending the action, or which actions of Ministers are at issue.

23 For contemporary Tribunal proceedings or significant Court actions, the Attorney-General will confirm the lead agency in discussion with the Minister for Māori Crown Relations: Te Arawhiti and relevant Ministers.

Reporting requirements for contemporary Treaty of Waitangi issues or policy changes

24 Ministers should report to MCR when they or their agencies are considering options or entering into formal discussions with Māori about the resolution of contemporary Treaty of Waitangi claims; or changes to policy, regulation, or service provision in the interests of Treaty of Waitangi consistency or effectiveness for Māori; **AND**

24.1 there is a Waitangi Tribunal finding of, or an expectation that the Crown will concede, a contemporary breach of the Treaty of Waitangi; **OR**

24.2 the changes being considered (or that are anticipated by Māori) are likely to be significant and precedent setting; including:

24.2.1 significant changes to institutional arrangements;

24.2.2 the provision of new or dedicated services, or direct funding to Māori with a significant fiscal impact;

- 24.2.3 regulatory change of a scale that would be likely to significantly exceed the threshold for a regulatory impact statement; or
 - 24.2.4 having a significant impact on New Zealand's international relationships or obligations.
- 25 It is expected that a large-scale, delegated service model, or a comprehensive review of an agency's services (in terms of their effectiveness for Māori) would meet these thresholds. Conversely, a proposal to make an individual service, practice, or policy more effective for Māori would not.
- 26 This report should occur once agencies have a clear sense of Māori aspirations but before agencies or Ministers make statements or concessions that would commit the Crown to (or raise Māori expectations of) the actions described in paragraph 24 above.
- 27 This report should contain analysis of:
- 27.1 the issues and aspirations presented by Māori;
 - 27.2 the current or proposed Crown policy, regulatory, or service interventions relevant to these issues, including the consistency of these interventions or proposals with the Treaty of Waitangi; and
 - 27.3 a clear proposal for the Crown's position and proposed approach (including engagement strategy) to the issue in question, taking into account the wider public interest and the interests of non-Māori.
- 28 Where such a report would otherwise have gone to another Cabinet Committee, the responsible Minister(s) should discuss, with the Minister for Māori Crown Relations: Te Arawhiti and the relevant Committee Chair, the best way to ensure members of both relevant Committees can review and have input into the paper. Options could include referring the paper through both Committees before it goes to Cabinet or inviting those members from one Committee who are not members of the other to attend a specific meeting.

Regular contemporary Treaty of Waitangi issues update

- 29 The Minister for Māori Crown Relations: Te Arawhiti will present a regularly updated report to MCR on significant contemporary Treaty of Waitangi issues. This report will be prepared with input from agencies involved in contemporary Treaty of Waitangi issues.

Michael Webster
Secretary of the Cabinet

Enquiries:

Te Arawhiti – Contemporary Issues Team
Duncan.Matangi@tearawhiti.govt.nz
Ph: 04 466 2468

Note: This circular has been updated with minor edits to clarify the application of the requirements in paragraphs 22-23.

Secondary Briefing: Land Use, Freshwater, and the Marine Environment - Date submitted: 14 December 2023

Tracking number: BRF-3973

Security level: In-Confidence

MfE priority: Not Urgent

Actions sought from ministers		
<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny Simmonds Minister for the Environment	Note the key decisions for your consideration (Appendix 1) Agree to meet with officials for further discussion	N/A
CC Hon Chris Bishop Minister Responsible for RMA Reform	For information	N/A

Actions for Minister's Office staff
Forward to Hon Andrew Hoggard, Associate Minister for the Environment if agreed Return the signed briefing to Ministry for the Environment (ministerials@mfe.govt.nz) — please send both hard <i>and</i> soft copies to ensure we meet our public record obligations.

Appendices and attachments
Appendix 1: Key decisions for the first 100 days

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Vicki Addison		
General Manager	Hayden Johnston	022 153 0221	
Deputy Secretary	Nadeine Dommissie	022 034 0311	✓

Minister's comments

Secondary Briefing: Land Use, Freshwater, and the Marine Environment

Key messages

1. New Zealanders have a strong relationship with land, water, and the marine environment – the health and wellbeing of our communities and economy is dependent on the sustainable use of these resources.
2. The quality of our land, water and marine environments has deteriorated over time and is under pressure in some areas – in both urban and rural environments.
3. This briefing provides an overview of the land use, freshwater and marine areas of work. It sets out relevant primary and secondary legislation, as well as work underway – including challenges and opportunities for your consideration. We view this briefing as a starting point for an ongoing discussion about how we can support you to deliver on your priorities.
4. There are some themes in the Coalition Agreements that the land use, freshwater and marine areas of work can support. These themes are around:
 - growing the economy, including the primary sector, while
 - reducing the regulatory burden and compliance costs for farmers.
5. Further advice will be provided on options to achieve these priorities. For example, by giving farmers the tools they need (eg, water storage) and simplifying aspects of existing secondary legislation (eg, stock exclusion).
6. As well as providing policy advice on legislative and regulatory settings, the Ministry for the Environment (the Ministry) supports effective implementation of the system, including through:
 - funding and investment – eg, restoration projects and building capability and capacity of people who engage with the freshwater management system
 - data and evidence – eg, environmental reports, research strategies and data sharing platforms, and monitoring council progress in implementing regulations and national direction
 - partnerships – with iwi/Māori, regional councils, key agencies, sector groups and key stakeholders.

7. Key areas that are likely to require your input in the first three months are outlined in Appendix 1 of this briefing, including:

- Freshwater Farm Plans – these now apply in Southland and Waikato and will begin to be rolled out in Otago, Horizons (Manawatū-Whanganui), and the West Coast from early 2024. Rollout to other regions will require your decisions.
- Changes to plan notification timeframes for the National Policy Statement for Freshwater Management 2020 (NPS-FM) and changes to the content and application of the NPS-FM as set out in the coalition agreements.
- Review of the operation of existing Significant Natural Areas (SNAs) and steps to cease implementation of new SNAs as set out in the coalition agreements.
- The management and protection of highly productive land – consultation has recently concluded on amendments to the National Policy Statement for Highly Productive Land (NPS-HPL). Proposed changes address restrictions on the construction of new infrastructure (such as solar farms) and intensive indoor primary production. Joint advice from the Ministry and the Ministry for Primary Industries will be provided on the outcome of the consultation with options to consider.

8. Some strategic issues for your consideration over a longer timeframe will be on:

- Biodiversity – including biodiversity credits and New Zealand's contribution to the Global Biodiversity Framework. The Ministry and the Department of Conservation have recently consulted on biodiversity credits, and the potential role of central government in relation to these. A summary of submissions, and further advice can be provided with options for you to consider.
- Forestry – including addressing longer-term recommendations from the Ministerial Inquiry into Land Use (MILU) and ensuring that regulatory settings effectively manage land use impacts and risks.
- Marine – better integrating the different systems that are used to manage activities occurring in the ocean, and progressing commitments to protect marine biodiversity under the Kunming-Montreal Global Biodiversity Framework.

Recommendations

We recommend that you:

- a. **note** that key upcoming advice and decisions are outlined for your attention in Appendix 1
- b. **agree** to meet with officials to further discuss the direction of the sustainable land use, freshwater and marine work programmes.

Yes | No

- c. **agree** to forward this briefing to your colleague Hon Andrew Hoggard, Associate Minister for the Environment

Yes | No

Signatures



Nadeine Dommisie
Deputy Secretary
Environmental Management

Date
14 December 2023

Hon Penny Simmonds
Minister for the Environment

Date

Hon Chris Bishop
Minister Responsible for RMA Reform

Date



Secondary Briefing: Land Use, Freshwater, and the Marine Environment

Purpose

1. This briefing provides an overview of the land use, freshwater, and marine environment policy settings, and outlines how the Ministry for the Environment (the Ministry) can support you to deliver on the Government's priorities in these areas.

Introduction

2. New Zealanders have a strong relationship with, and reliance on, our land, water, and oceans. The health and wellbeing of our land, water, and oceans is intrinsically linked with the health and wellbeing of our communities and economy.
3. Land use (eg, agriculture, urban development, forestry), and certain land-use practices (eg, intensive winter grazing, forest harvesting), significantly influence the health and resilience of our freshwater and land. As water moves down-catchment, it transports contaminants which concentrate in receiving environments (lakes, wetlands), before discharging into coastal waters (estuaries, lagoons).
4. Environmental reporting shows that the quality of New Zealand's freshwater, soils, estuaries, oceans, and associated biodiversity are under increasing pressure from climate change, land uses, and/or practices that are not well-suited to the geophysical characteristics of the land they take place on.¹
5. The Ministry has a core function of providing advice to you on environmental matters² and developing primary and secondary legislation (including regulations and national direction). We also have a stewardship role to support and review the implementation of environmental legislation.
6. The Ministry is committed to working in partnership with iwi/Māori, other agencies, local government, sector groups and communities to ensure our work is well connected. We work particularly closely with natural resources sector

¹ The latest three reports on [Our Freshwater](#), [Our Land](#) and [Our Marine](#).

² Environmental matters include, social, economic, aesthetic and cultural conditions in addition to natural and physical resources and ecosystems.

agencies such as the Ministry for Primary Industries (MPI) and Department of Conservation (DOC).

7. Understanding the interconnectedness of our environment is a key consideration in sustainable use, and there are further opportunities to ensure policies mutually re-enforce one another to achieve multiple outcomes, while reducing the cumulative regulatory burden.
8. This briefing sets out:
 - Your Ministerial role and responsibilities
 - Relevant legislation/regulation/national direction in respect of sustainable land use, freshwater and the marine environment
 - How we support implementation and improved outcomes through funding and investment, data and evidence, and our partnerships.

Your Ministerial role and responsibilities

9. The Minister for the Environment has a range of responsibilities and powers under the resource management system that relate to sustainable land use. These include making decisions on secondary legislation, considering proposals of national significance, and fast-track consenting. There are also responsibilities under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act).
10. There are a range of regulatory and non-regulatory levers that are available to the Minister for the Environment to achieve the Government's goals.
11. One lever is legislation and the secondary legislation that is made under it. Secondary legislation varies in whom it applies to, and how it takes effect. Some direct the content of local council planning documents (eg, National Policy Statements). Others set standards that apply directly to resource users and regulate activities by requiring consents or permitting activities subject to specific standards (eg, National Environmental Standards).
12. Some types of secondary legislation apply directly (without resource consent) and are suited to relatively straightforward matters with limited local variation (eg, Resource Management (Measurement and Reporting of Water Takes) Regulations 2010). Whereas others have been designed to provide a flexible, tailored approach to on-farm management of effects (eg, Resource Management (Freshwater Farm Plans) Regulations 2023).
13. It is the role of councils to implement, monitor, and undertake compliance monitoring and enforcement of secondary legislation. The Ministry, in turn, has an oversight and monitoring role of council activities on behalf of the Minister for the Environment.

14. There are a range of non-regulatory ways to support implementation or drive change. These include government funding, strategies, guidance and/or protocols.
15. You can also decide to exercise statutory and discretionary functions such as requesting data/reports from councils on the environment, investigating council performance, or submitting on regional plan content at freshwater plan hearings under the Freshwater Planning Process set out in the RMA.
16. The Ministry's 'Briefing for Incoming Ministers – Environment, Climate Change and RMA Reform' provides further detail on your statutory responsibilities and functions.

Key decisions needed in the near term

17. Some matters will require your consideration and decisions soon, and these are set out in Appendix 1. We can discuss these with you, including timing, and will provide further information as they arise or on request.

Relevant primary and secondary legislation

18. The Ministry, together with our partners, does a wide range of work focused on developing, implementing and reviewing environmental secondary legislation (including regulations and national direction). This work is summarised below in terms of the relevant secondary legislation and opportunities for:
 - i. Sustainable land use and land-use practices – including biodiversity
 - ii. Human health considerations – for drinking water and recreation
 - iii. Improving the quality and management of freshwater ecosystems
 - iv. Managing the marine environment.

i. Sustainable land use and land-use practices

Resource Management (Freshwater Farm Plans) Regulations 2023

19. Freshwater farm plans were established under Part 9A of the RMA in 2023 as a tailored but enforceable tool to address on-farm risks to freshwater.
20. The freshwater farm plan system was designed to reduce or replace the need for resource consents related to farming activities. Regional councils remain responsible for setting the regulatory context and monitoring the overall system.
21. Farmers will engage a trained certifier to ensure that planned actions meet regulatory requirements. Auditors will then assess whether those actions are undertaken. Certifiers and auditors will be appointed by regional councils. Farmers and growers can choose which certifier and auditor they engage.

22. Freshwater farm plan regulations do not apply to a region until activated by an Order in Council. To date they have been applied to Southland and Waikato (starting from 1 August 2023) and Otago, Horizons (Manawatū-Whanganui), and the West Coast (starting from early 2024). We (jointly with MPI) will be seeking your decision on the next regions for rollout and will provide you with advice and recommendations on these matters in due course.
23. We understand you may wish to make improvements to the farm planning system to align with the coalition policy that farm environment plans are cost effective and pragmatic. Advice on options to achieve this can be provided to you.
24. Funding has been allocated to support the development of a freshwater farm plan workforce and to monitor system performance. Initiatives are underway to build capability and support practices, provide farmers with a dispute resolution process, and streamline how farmers engage with the system within a catchment context. We will continue to update you on progress with the implementation of the regulations.

Forestry is a key consideration in respect of sustainable land use

25. Forestry is a contributor to environmental outcomes, and can support a sustainable, low emission and circular economy. We work closely with MPI and Te Uru Rākau – New Zealand Forest Service on policy advice that relates to forestry matters.
26. For the first time since the 1990s, New Zealand is seeing significant afforestation. Afforestation rates are driven by Emissions Trading Scheme (ETS) incentives, while the Forestry and Wood Processing Industry Transformation Plan (led by MPI) sets out a pathway for greater value capture and supports domestic value chains. On this important strategic issue, it is likely that you will work closely with your colleagues who hold related portfolios; the Minister of Climate Change and the Minister of Forestry.³
27. Different types of forestry can form key parts of a sustainable land-use mix. For example, intensive production forests provide raw materials for a wide range of industries and are economically important to communities in which they operate. In order to minimise the effects on the natural and built environment, they must be located in appropriate places and be well-managed.
28. Other forest models are more appropriate in certain locations. On erosion-prone land, large-scale clear-fell harvest can create unacceptable risks. Permanent cover forest (exotic or native) may be the best way to reduce these risks and provide for other values, such as biodiversity.

³ The Minister of Climate Change is responsible for the ETS and supports the broader context of transition to a low emissions economy while the Minister of Forestry is responsible for growth and development of the forestry sector.

29. You have a regulatory tool to directly manage some types of forestry practice – the National Environmental Standards for Commercial Forestry 2023 (NES-CF).⁴ The NES-CF focuses on providing a consistent regulatory framework for key plantation and permanent forestry activities (eg, afforestation, and harvesting of plantation forests). Amendments in 2023 gave councils the ability to control the location of new forestry, extended coverage to permanent exotic forestry and made operational changes, including new slash management provisions, resulting from a recent review.⁵
30. The NES-CF remains limited in its ability to respond to broader land use issues and may not be adequate to manage forestry in a changing environment. There are several options which would allow you to influence the mix of land uses through regional planning documents and advice can be provided on this.
31. We understand you may wish to make changes around councils' ability to control the location of forestry, to maintain the availability of productive agricultural land. There are a range of possible instruments you could use depending on the outcomes you are seeking to achieve, and officials can provide further advice on this.
32. We also understand you may seek to amend the provisions in the NES-CF around containing and removing post-harvest slash. We would welcome an opportunity to discuss potential approaches, including the impact of the changes to the NES-CF on 3 November 2023, which introduced new requirements to contain and remove post-harvest slash.
33. A Ministerial Inquiry into Land Use (MILU) investigated land use and forestry issues following the damage caused by Cyclones Gabrielle and Hale in Tairāwhiti Gisborne and Wairoa. The response to the MILU to date has prioritised actions to clean up woody debris and to provide support for Gisborne District Council. The longer-term response could consider how to reduce the risk of further events of this nature.

Protecting Highly Productive Land

34. Highly productive land is defined as having fertile soil with a good climate and ideal terrain for cultivation. It generally requires fewer inputs to produce quality food and fibre.
35. Highly productive land is found across New Zealand and is prevalent in our food growing hubs: south of Auckland; Waikato; Hawke's Bay; Horowhenua; and Canterbury. Productive areas are often on the fringes of towns and cities. Urban expansion as well as fragmentation for rural lifestyle development has impacted the availability of highly productive land.

⁴ Formerly the National Environmental Standards for Plantation Forestry.

⁵ <https://www.mpi.govt.nz/dmsdocument/44914-Report-on-the-Year-One-Review-of-the-National-Environmental-Standards-for-Plantation-Forestry>

36. Approximately 15% of land in New Zealand is highly productive land, with about 5% being on Land Use Capability (LUC) 1-2 land.⁶ Between 2002-2019, more than half of all urban growth and rural lifestyle development was on highly productive land. Whilst this represents only 2.6% of the total highly productive land in New Zealand, this varied across regions with it being most evident in the Auckland region (where 8.4% of highly productive land was lost).
37. The National Policy Statement for Highly Productive Land (NPS-HPL) protects land for land-based primary production, by restricting inappropriate use, development, or subdivision. It provides consent pathways for other activities on highly productive land such as infrastructure, and flood control and protection. Other activities (including urban and residential development) may be considered via a resource consent when there are permanent or long-term constraints on that land being used for primary production.
38. Land that was 'identified for future urban development' is excluded from highly productive land. There is a pathway for rezoning highly productive land for urban development where necessary, subject to specific tests (ie, consideration of alternative options for accommodating growth and the costs and benefits).
39. Regional councils are required to map all highly productive land in their regions by October 2025. District councils must update district plan maps no later than 6 months following the regional council update. Since the NPS-HPL's introduction in 2022, issues have been raised regarding:
- the challenges it presents to constructing *new* specified infrastructure on highly productive land (such as solar farms); and
 - the development and relocation of intensive indoor primary production and greenhouses on highly productive land.
40. Public consultation on proposed changes to address these issues concluded in October 2023. We will provide a summary of the feedback with options for you to consider, including allowing for a broader range of productive rural activities under the NPS-HPL and enabling further housing development on Land Use Capability (LUC) 3 land.

Improving biodiversity outcomes

41. Biodiversity is a unique and critical part of the health of our environment. We have one of the highest proportions of threatened indigenous species in the world – despite ongoing efforts, many of our assessed indigenous species show a declining population trend.⁷

⁶ LUC refers to Land Use Capability classification - a system that classifies all rural land into one of eight classes. LUC 1, 2 or 3 is considered as highly productive land for the purpose of the NPS-HPL

⁷ More than 75% of indigenous species in reptile, bird, bat, and freshwater fish species groups are threatened with extinction or are at risk of becoming threatened <https://www.stats.govt.nz/indicators/extinction-threat-to-indigenous-species/>

42. Under section 6 of the RMA, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna is a matter of national importance. Councils are at different stages and have taken different approaches to giving effect to this.
43. The National Policy Statement for Indigenous Biodiversity 2023 (NPSIB) was made to provide local authorities and resource users with a consistent approach to protecting these areas of significant indigenous biodiversity.
44. The NPSIB must be given effect by changes to regional policy statements and/or plans within 5 years of commencement (by 2028) and councils must have a regional biodiversity strategy within 10 years.
45. We understand the Government wishes to urgently receive advice on the operation of existing Significant Natural Areas (SNAs) and steps to cease implementation of new SNAs. An initial briefing on these matters will be with you soon.
46. The Ministry contributes to international work on biodiversity mainly through the Convention for Biological Diversity (CBD), to which New Zealand is a party. We work with the Ministry of Foreign Affairs and Trade (MFAT) and DOC to ensure New Zealand can respond to the CBD's Global Biodiversity Framework which sets 23 global targets to achieve by 2030. This includes the "30x30" commitment to protect 30% of the planet by 2030.
47. The Minister for the Environment has a specific role in considering the human-induced threats to biodiversity from a resource management perspective. As Minister, you will help shape New Zealand's negotiating position and, along with the Minister of Conservation, may represent New Zealand at Conference of the Parties meetings.
48. At a national level, we support Te Mana o te Taiao (the Aotearoa New Zealand Biodiversity Strategy), which provides strategic direction for the protection, restoration, and sustainable use of biodiversity. Te Mana o te Taiao and its action plan is the framework by which New Zealand implements the CBD. DOC is reviewing the framework to identify gaps and to better align with the Global Biodiversity Framework.
49. A voluntary biodiversity credits⁸ market is emerging both internationally and in New Zealand, generally as an extension of voluntary carbon markets. This presents one of several opportunities to close the finance gap faced by landowners and project proponents to restore land and ecosystems.
50. We (alongside DOC) have recently consulted on a biodiversity credit system⁹ that could incentivise wetland restoration and creation, alongside other biodiversity restoration and protection benefits. We will provide you with advice on the

⁸ Biodiversity credits are legal instruments that recognise an action or outcome achieved to support nature.

⁹ <https://consult.environment.govt.nz/biodiversity/nz-biodiversity-credit-system/>

feedback received and discuss how you would like to direct future work on this issue.

ii. Human health considerations – drinking water and recreation

51. Activities on land and in water impact the quality and safety of sources of drinking water and the ability to safely collect food from, and swim at, our rivers, lakes, and beaches.

Drinking water

52. Many hundreds of New Zealanders become ill from drinking contaminated water every year. Taumata Arowai (the water services regulator) reports that in the 2022 calendar year, 188 consumer advisory notices were issued instructing consumers to 'boil water', or 'do not drink' or 'do not use' their tap water. This occurred throughout the country, with more than half of district councils issuing such warnings. Taumata Arowai also received 387 notifications in 2022 that Maximum Allowable Values in drinking water were exceeded.¹⁰
53. Changes to the National Environmental Standards for Sources of Human Drinking Water 2007 (NES-DW) were consulted on in March 2022. We recognise that you may wish to make further changes and will provide you with more detailed advice on the themes from the consultation process, and potential options for you to consider.
54. There is growing public concern regarding the level of nitrates in drinking water and the potential health impacts. Intensive land use has led to increasing nitrate concentrations across New Zealand in source water, with worsening trends being most prevalent in Canterbury, Southland, Waikato, Hawke's Bay and Wairarapa. The Ministry is a member of a cross-agency working group led by the Ministry of Health (MoH) to monitor the health impacts of nitrates in drinking water and to advise of any further work that may be required.

Swimming

55. Councils must monitor and manage freshwater swimming sites under the National Policy Statement for Freshwater Management 2020 (NPS-FM). Land, Air and Water Aotearoa (LAWA) reported in 2023 that two-thirds of all monitored freshwater swimming sites presented a potential risk to public health.¹¹
56. LAWA uses regional council monitoring data. The guidelines for safe levels of bacterial contamination for primary contact (swimming) are based on science that is currently being reviewed and is due for completion by January 2025. We will provide a summary of the findings when available with options to consider. Advice on nationally consistent water quality standards for swimming in coastal waters can also be provided to you.

¹⁰ <https://www.taumataarowai.govt.nz/assets/Uploads/Governance-docs/Drinking-Water-Regulation-Report-2022.pdf>

¹¹ [Land, Air, Water Aotearoa \(LAWA\) -](#)

iii. Improving the quality and management of freshwater ecosystems

57. Freshwater is a strategic resource relied on by key sectors of the New Zealand economy, including primary production and processing. Climate change, and an increasing awareness of environmental limits, is placing pressure on freshwater resources.
58. A considerable amount of work and momentum has built around restoring and protecting the health of our waterways over the last decade. This includes significant non-regulatory initiatives (funding) as well as a comprehensive suite of secondary legislation.
59. Some of this secondary legislation addresses high-risk land-use practices with immediate effect. They are supported by a national policy statement for freshwater management designed to reverse declining trends over the longer term by strengthening local government and communities' planning and decision-making.
60. Below is a summary of the key pieces of primary and secondary legislation that work together to support councils, iwi/Māori, farmers, and growers to take action to improve freshwater outcomes in their own catchments. We recognise that changes will be needed across these areas of work, to ensure alignment with Government priorities and commitments.

National Policy Statement for Freshwater Management 2020 (NPS-FM)

61. The NPS-FM is the key driver of the freshwater management framework and primarily takes effect through the rules set by councils in their regional plans.
62. Councils must manage freshwater so that water bodies do not deteriorate beyond a benchmark (referred to as the 'maintain or improve' requirements). There are 22 freshwater attributes (measures) that regional councils must set targets for and monitor against.¹²
63. Some of the attributes also have nationally-defined bottom lines. In locations where water quality is below these, councils must improve water quality to at least the national bottom line. They can do so over long timeframes if necessary to spread the costs to sectors and communities and allow time for change.
64. Councils must engage with communities and tangata whenua to establish the long-term vision sought for local water bodies. Together, they then set objectives, and catchment level targets and 'limits on resource use' (rules on water takes and discharges) to achieve the vision. If improvement on the current state is

¹² Attributes are set out in tables in Appendices of the NPS-FM. Each table has a series of ranges or bands (A-D) which denote thresholds of harm. The threshold between C and D-Band is known as the 'national bottom line'. All attributes have national bottom lines except Dissolved Reactive Phosphorus, Fish (habitat and community) and *E. coli* (average infection risk to swimmers).

desired, it is possible to achieve this over multi-year targets. This spreads costs and acknowledges change takes time.

65. Te Mana o te Wai is a fundamental concept in the NPS-FM, it is about restoring and preserving the balance between the water, the wider environment, and the community. It also creates three priorities for water management, leading with the health and well-being of water bodies and freshwater ecosystems, secondly the health needs of people (such as drinking water) and third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future (NPS-FM clause 2.1).
66. We note the coalition policy to rebalance Te Mana o te Wai to better reflect the interests of all water users and we have provided you with initial advice on the process for how this could be addressed.
67. We note the coalition policy to replace the NPS-FM to allow district councils more flexibility in how they meet environmental limits and to receive advice on exempting councils from obligations under the NPS-FM, we will prepare advice for you on these matters early next year.

Managing land-use practices – winter grazing, stock exclusion and wetlands

68. Other secondary legislation does not require a plan change to take effect, and addresses land-use practices that can impact freshwater quality if not managed appropriately.
69. The National Environmental Standards for Freshwater (NES-F) covers activities resulting in the loss of wetlands and rivers, controls on intensive winter grazing, and a cap on the maximum amount of synthetic nitrogen fertiliser that can be applied to pastoral land.
70. Amendments to the wetland rules in 2022 provided consent pathways for the following purposes: urban development, quarries, mining, landfills, and water storage. These also clarified the application of the national direction in relation to wetland restoration and that the NES-F does not apply to coastal wetlands.
71. The Resource Management (Stock Exclusion) Regulations 2020 do not require consents and apply to any person who owns or controls deer, pigs, dairy support cattle, dairy cattle, and beef cattle. They took immediate effect in 2020 for new pastoral systems, and to existing farms in mid-2023 or mid-2025 depending on stock type and practices. The regulations do not require farmers to fence waterways *per se*, though in many cases this will be the practical option.
72. The stock exclusion regulations were amended in 2023 to provide more flexibility for lower intensity farming. This includes clarifying the application of the low slope map (does not include any land that exceeds 10 degrees in slope), providing an exception from the low slope map for land that is subject to existing controls (eg, pastoral lease or grazing concession) and enabling Otago Regional Council to manage stock access in the Taieri Scroll Plains in lieu of the regulation.

73. One aspect of regulation is that it can be rather blunt when applied at a national scale. We acknowledge the feedback from the primary sector and many councils that highlights support for regulations that provide flexibility while still achieving desired outcomes. There is an opportunity to achieve this by simplifying aspects of existing direction to reduce the cumulative burden on the primary sector. We will discuss potential options for this with you in due course.

Allocation of freshwater – reducing overallocation and managing within environmental limits

74. Allocation of freshwater is a technically and socially complex issue to navigate. Historically, freshwater resources have been allocated by regional councils under the RMA on a “first in, first served” basis with an effective perpetual right of renewal of time-limited consents, and limited ability to review users’ consents to meet environmental outcomes. There have also been few transfers of water consents. Despite it being enabled in the RMA, few councils have set rules enabling transfers. This approach has led to water being allocated inefficiently and inequitably, with the same users retaining access – to the exclusion of potential new users who may have higher value uses.

75. In many parts of the country, allocation of freshwater resources has exceeded environmental limits (ie, are overallocated). The NPS-FM requires regional councils to first avoid, then phase out, existing overallocation. Phasing out overallocation makes resources scarcer and heightens the impacts of an inefficient and inequitable approach to allocation.

76. Local decision makers may not be able to move towards more efficient and equitable allocation alone, central government support can help. This could be through providing non-statutory guidance on using existing RMA allocation tools/methods, enabling further allocation methods through amending the RMA, or being more prescriptive through secondary legislation. There are opportunities for setting out efficient and equitable methods for water allocation that provide certainty and make the best use of water resources for all New Zealanders.

77. We can provide further advice on options for:

- bringing together sector groups, other stakeholders and iwi to navigate these complex issues
- amending the RMA to better facilitate more efficient and equitable allocation and
- better measuring freshwater takes and discharges, to help facilitate efficient and equitable allocation methods.

78. We would like to discuss with you the level of central government direction you envisage to support the allocation of freshwater. Depending on what you seek to achieve, this may require further policy development and working closely with iwi/Māori, sector groups, local government and other key stakeholders. Further detail and advice on these matters will be provided.

Māori rights and interests in freshwater

79. In 2012, former Deputy Prime Minister Rt Hon Bill English made assurances to the High Court in the context of mixed ownership model litigation that it acknowledges that Māori have rights and interests in freshwater and geothermal resources.¹³ The Crown stated that any recognition must:

*'Involve mechanisms that relate to the on-going use of those resources, and may include decision-making roles in relation to care, protection, use, access, and allocation, and/or charges or rentals for use. Currently the Ministry for the Environment has responsibility for progressing policy development around these issues.'*¹⁴

80. Māori rights and interests can be broadly categorised in four dimensions:¹⁵

- water quality (mechanisms to improve water quality and the health of ecosystems and give effect to Māori freshwater values)
- recognition (recognise Māori relationships with particular water bodies)
- governance / management / decision-making (enhance Māori participation at all levels of freshwater decision-making)
- economic interests (develop mechanisms to enable Māori to access and use freshwater in order to realise and express economic and development interests).

81. Progress has been made since the 2012 acknowledgement on the first three dimensions of Māori rights and interests through subsequent amendments to the NPS-FM and introduction of the Mana Whakahono ā Rohe provisions in the 2017 amendments to the RMA.

82. The fourth dimension – economic interests – has been the most challenging to address and has seen the least progress between Māori and the Crown. The Freshwater Working Group and related provisions in the NBA set out processes to progress this dimension. We will seek your direction on next steps for the Freshwater Working Group, and can provide advice to support your decision on how you would like to direct future work on this issue.

iv. The marine environment

83. We rely on our ocean and coasts for social, cultural, and economic activity.

84. Iwi/Māori have diverse rights and interests in the marine environment. This includes as kaitiaki of their moana, recipients of rights and assets provided as

¹³ New Zealand Māori Council v Attorney-General [2012] NZHC 3338 at [302].

¹⁴ New Zealand Māori Council v Attorney-General [2013] NZSC 6.

¹⁵ Developed in a joint work programme between the Crown and Freshwater Iwi Leaders Group in 2015.

redress under Treaty of Waitangi settlements¹⁶ and the Marine and Coastal Area (Takutai Moana) Act 2011, plus as investors in the blue economy.¹⁷

85. The ocean is under new and increasing pressure from climate change, land-based and marine activities. The way we use and manage land and water can significantly impact the coastal marine environment. For example, initiatives that reduce sediment loads also protect marine fisheries and near-shore environments.
86. The ocean plays a critical role in regulating the climate. Estimates to date are that the ocean has absorbed about 30% of CO₂ emissions (increasing ocean acidification) and 90% of the warming energy in recent decades (causing both a rise in sea level as well as temperature).
87. Management of the marine environment sits with several agencies plus local government and the Environmental Protection Authority (EPA). To support a collaborative approach, an Oceans Secretariat has been set up – hosted by DOC, involving the Ministry and MPI with support from MFAT. You have been provided with a briefing from this secretariat with joint agency advice on the oceans aspects of your portfolio.
88. There is increasing interest in undertaking activities in New Zealand's Exclusive Economic Zone (EEZ) and coastal waters (the territorial sea), such as offshore renewable energy (including offshore wind), and carbon capture and storage. The Ministry for Business, Innovation and Employment (MBIE) is in the process of developing a regulatory framework for offshore renewable energy that would apply to both the territorial sea and EEZ.
89. Aquaculture is regulated primarily under the resource management system. The Ministry and MPI jointly worked on the Resource Management (National Environmental Standards for Marine Aquaculture) 2020 (NES-MA) that set national rules for existing marine farms. The NES-MA provides consistency and certainty for the industry while appropriately managing the effects of aquaculture activities. A review of the implementation of the NES-MA was completed by MPI in August 2023 and further advice will be provided to you on this.
90. Ministers will need to make decisions on New Zealand's contribution to the Kunming-Montreal Global Biodiversity Framework target of at least 30% of coastal and marine areas conserved and managed by 2030. Agencies will provide joint advice to Ministers on this next year, prior to the Conference of the Parties to the Convention on Biological Diversity to be held in October 2024.

¹⁶ Treaty of Waitangi (Fishing Claims) Settlement Act 1992, the Māori Fisheries Act 2004, the Māori Commercial Aquaculture Claims Settlement Act 2004, and individual iwi settlements.

¹⁷ The blue economy encompasses all economic activities in the marine space. There are varying definitions, but generally these include sustainable use and maintaining ocean health. The Sustainable Seas National Science Challenge defines the blue economy as “*marine activities that generate economic value and contribute positively to ecological, cultural and social well-being.*”

91. Decisions will also be needed on next steps for the Kermadec Ocean Sanctuary Bill (the Bill). Over the last three years, the Ministry led discussions with Te Ohu Kaimoana (and northern iwi) to develop a revised proposal that better recognises Māori rights and interests. In June 2023, iwi organisations voted not to support the revised proposal and the Government decided not to progress the Bill. Te Ohu Kaimoana, on behalf of iwi organisations, has since begun a process to create an indigenous, iwi-led approach to oceans management. Further advice on this will be provided in due course.

Supporting implementation and improved outcomes

92. As part of our stewardship role, we support the implementation of regulatory and non-regulatory initiatives through:

- funding and investment
- data and evidence
- partnerships – with iwi/Māori, agencies, sector groups, communities, and other stakeholders.

Funding and investment

93. Funding and financing are key enablers to improving environmental outcomes and progressing government priorities.

94. The Ministry administers a range of funding schemes to address freshwater management issues. These funds can help communities to address legacy issues. For example, the cross-agency investment package of \$1.254 billion for the Jobs for Nature Programme (you will receive a separate briefing on this – BRF-4008 refers).

95. We take a strategic approach to fund what will make the most difference to the environmental management system. A focus on building capacity and capability across local authorities, and those who engage in the resource management system, will generate improved outcomes and cost-savings over the long-term.

Data and Evidence

96. Data and evidence are a cornerstone of effective policy intervention. To fulfil our stewardship role, we need to understand both the short and long-term drivers of environmental degradation to inform the appropriate policy response.

97. Our data and evidence gathering system has gaps. Most environmental monitoring is undertaken by regional councils. Their resources are regionally focused, and unevenly spread. This creates challenges for maintaining a nationally representative monitoring network to inform government decisions.

98. We anticipate improvements in growing our data and evidence base with the implementation of the NPS-FM. It requires regional councils to set targets for 22 compulsory attributes,¹⁸ and to monitor and report on progress against them. This will provide more comprehensive information on state and trends of freshwater health. While the current attributes are all necessary to manage freshwater, additional attributes could be included for groundwater and urban contaminants (eg, heavy metals).
99. We are developing a strategic approach to ensure data and evidence have dedicated resources that produce robust information. We partner with other agencies (eg, MBIE, MPI) and crown entities (eg, NIWA, the National Science Challenge) to align commissioning and funding of data and research (you will receive a separate briefing on this).

Partnerships with Māori, agencies, sector groups, communities and other stakeholders

100. Connecting with key partners is essential for current and future work to be successful. To achieve its goals, the Ministry works alongside, and partners with, other agencies, local government, industry groups, environmental non-governmental organisations (ENGOS), professional bodies and communities.
101. The Ministry is committed in its role as a Māori-Crown partner to deliver in partnership with iwi/Māori. A more detailed description is provided in the Ministry's 'Briefing for Incoming Ministers – Environment, Climate Change and RMA Reform'.
102. When developing policy we connect with interested agencies, Crown entities and departments. Our closest working relationships are with Department of Conservation, Ministry for Primary Industries, Department of Internal Affairs, Taumata Arowai (the water services regulator), Ministry of Business, Innovation and Employment, the Treasury, Ministry of Health, Land Information New Zealand and Ministry of Foreign Affairs and Trade.

Next steps

103. We look forward to meeting with you and discussing how we can best support you to achieve the Government's priorities for improving environmental outcomes relating to sustainable land use, freshwater, and the marine environment.
104. Any additional information can be provided on request.

¹⁸ An attribute is a measurable characteristic (numeric, narrative, or both) of water quality and ecosystem health eg, dissolved oxygen, nitrogen, or macroinvertebrates.

Appendix 1 – Key upcoming advice and decisions

Key decisions	Dates	Notes
How to progress changes to the NPS-FM including rebalancing Te Mana o te Wai	Q4 2023 / Q1 2024	Officials are already working with you on this. Co-lead with MPI
Progress phased rollout for Freshwater Farm Plans	Q1 2024	Decisions needed on rollout to other regions
Advice on implementation of significant natural areas (SNA) and decisions on next steps for Biodiversity Credits	Q4 2023 / Q1 2024	Consultation on credits completed
Decisions on possible amendments to the National Environmental Standards for Commercial Forestry 2023 (NES-CF) and response to the Ministerial Inquiry into Land-Use	Q1 2024	Co-lead with MPI
Decisions on proposed changes to the National Policy Statement for Highly Productive Land (NPS-HPL)	Q1 2024	Co-lead with MPI
Decisions on proposed changes to the National Environmental Standards for Sources of Human Drinking Water (NES-DW)	Q1 2024	Changes proposed in response to the Havelock North Drinking Water Inquiry
Decisions on review of implementation of the National Environmental Standards for Marine Aquaculture (NES-MA) regulations	Q1 2024	Led by MPI with support from MfE
Response to Environment Select Committee Inquiry on seabed mining	Q1 2024 TBC	Dependent on Committee's decision to reinstate inquiry
Response to Environment Committee Briefing on environmental outcomes – freshwater (Cabinet report back required)	Q1 2024 TBC	Cross-agency work underway with MPI, MBIE, DOC, DIA, and LINZ



100-day plan commitment: Approach to ceasing implementation of new Significant Natural Areas

Date submitted: 14 December 2023

Tracking number: BRF-3970

Security level: Policy and Privacy

MfE priority: Urgent

Actions sought from Ministers		
Name and position	Action sought	Response by
To Hon Penny SIMMONDS Minister for the Environment	Discuss with officials next steps for achieving the 100-day plan commitment to “Begin to cease implementation of new Significant Natural Areas and seek advice on operation of the areas”	21 December
cc Hon Chris BISHOP Minister Responsible for RMA Reform	Note the content of this briefing	

Actions for Minister’s office staff
If agreed forward to Hon Andrew Hoggard, Associate Minister for the Environment If agreed forward to Hon Tama Potaka, Minister of Conservation. Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
Appendix 1: NPSIB operational details

Key contacts at Ministry for the Environment			
Position	Name	Cell phone	First contact
Principal Author	Rosemary Feary		
Responsible Manager	Jo Burton		
General Manager	Hayden Johnston	0221530221	✓

Minister’s comments

100-day plan commitment: Approach to ceasing implementation of new Significant Natural Areas

Key messages

1. The Government's 100-day plan commits to "Begin to cease implementation of new Significant Natural Areas and seek advice on operation of the areas".
2. All decision makers under the Resource Management Act 1991 (RMA) are required to recognise and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna as a matter of national importance.
3. Prior to the National Policy Statement for Indigenous Biodiversity (NPSIB), councils took a variety of approaches to implementing this requirement. The NPSIB standardised the approach to identifying and managing these areas and named them 'Significant Natural Areas' (SNAs). The NPSIB sets out timeframes for including SNAs in plans. Similarly named areas already exist in many plans to give effect to the RMA.
4. Ceasing new SNA identification and mapping processes set in train by councils since the NPSIB came into force could be achieved by amending the NPSIB, either by the standard process for amending national policy direction set out in the RMA, or via the next suitable legislative vehicle.
5. A change could direct councils to cease (until a specified future date) SNA identification processes started since the NPSIB took effect. Alternatively, extending or deferring the NPSIB implementation timeframes could encourage councils to cease implementation until a review process of the SNA criteria within the NPSIB is undertaken.
6. Ceasing implementation of SNAs under the NPSIB would not change RMA requirements for councils to protect significant indigenous biodiversity.
7. We recommend that the process to make any changes to the NPSIB should be combined with amendments to other national direction to the extent possible. This would help to ensure integration and would reduce the number of separate engagement processes across the national direction programme of work.
8. Once implementation of new SNAs are effectively ceased, a review "on operation of the areas" could be initiated according to RMA processes. We estimate that two-thirds of councils have identified areas in their district plans akin to SNAs and have some plan provisions in place to protect and manage these areas.
9. An implementation package to support local government and landowners in implementing the NPSIB is on hold pending direction from you.

Recommendations

We recommend that you:

Discuss with officials the next steps for achieving the commitment to “Begin to cease implementation of new Significant Natural Areas and seek advice on operation of the areas”.

Yes | No

Agree to forward this briefing to Hon Andrew Hoggard, Associate Minister for the Environment.

Yes | No

Agree to forward this briefing to Hon Tama Potaka, the Minister of Conservation.

Yes | No

Signatures

Hayden Johnston

General Manager – Natural Environment Policy

14 December 2023



Hon Penny SIMMONDS

Minister for the Environment

Date

100-day plan commitment: Approach to ceasing implementation of new Significant Natural Areas

Purpose

10. This briefing provides initial advice on how to achieve the 100-day plan commitment to “Begin to cease implementation of new Significant Natural Areas and seek advice on operation of the areas”.

Background

Overview of the National Policy Statement for Indigenous Biodiversity

11. The National Policy Statement for Indigenous Biodiversity (NPSIB) came into force on 4 August 2023. It intends to help address New Zealand’s biodiversity decline (with New Zealand having one of the highest proportions of threatened and at-risk species in the world). It also contributes to delivering on the Aotearoa New Zealand Biodiversity Strategy goals and meeting international obligations.¹
12. The NPSIB codifies the requirements on councils in the Resource Management Act 1991 (RMA) to recognise and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (indigenous biodiversity) as a matter of national importance (refer section 6 (c) of the RMA) and council functions for indigenous biodiversity (sections 30 and 31 of the RMA). The Courts have provided strong determinations that voluntary actions are, in the main, not sufficient unless they are paired with stronger protective planning mechanisms.
13. Prior to the NPSIB, the RMA requirements for councils lacked detail, resulting in inconsistent implementation, inefficiency, uncertainty, litigation, and poor communication with landowners.
14. The NPSIB provides standardised procedures for councils on how to carry out the RMA requirements in their policy statements, plans and resource consent decision making (including via significance criteria to assess SNAs, management approaches, and consent pathways for certain activities).
15. The NPSIB directs councils’ resource management functions – not landowners. For example, it does not require landowners to undertake proactive restoration,

¹ The UN Convention on Biological Diversity, and Kunming-Montreal Protocol Global Biodiversity Framework.

fencing, or pest control. The NPSIB builds on the policy direction of the multi-stakeholder Biodiversity Collaborative Group (BCG) set up in 2017².

How the NPSIB manages SNAs

16. The NPSIB requires councils to identify SNAs and map them in plans, using specified ecological significance criteria. Councils have five years to include SNAs in plans from when the NPSIB came in to force on 4 August 2023.
17. The NPSIB also establishes principles councils must use when working with landowners and communities to ensure processes are fair and robust.
18. The NPSIB sets out management approaches for new activities that affect SNAs, including to avoid five critical adverse effects (these are listed in Appendix 1) and otherwise manage the adverse effects of new activities through an effects management hierarchy and other management regimes. Existing activities can continue, as long as their effects on an SNA do not increase or further degrade it.
19. The NPSIB provides exemptions for activities needed for people's social, economic and cultural wellbeing. For example, important activities like infrastructure and mineral extraction can be consented if they meet a specified management approach. Other activities are provided for such as maintenance of improved pasture for farming, and plantation forestry, which have their own management regimes. The NPSIB does not apply to renewable electricity generation and electricity transmission activities.
20. Appendix 1 provides a more detailed overview of the NPSIB and SNA mechanisms.

Analysis and advice

21. Councils are at different stages in fulfilling RMA obligations to manage and protect biodiversity. Over the decades, many councils have instituted a range of approaches to identifying and managing areas required to be protected under the RMA, which has included mapping of areas as SNAs, or similarly named protected areas, in their plans. Many of these approaches are consistent with the NPSIB SNA identification criteria.
22. The NPSIB has only just come into force and most councils have not yet begun to implement it in plan making, but it is being used in consent decision making as required by section 104(1) (b) of the RMA. The process of identifying and

² The BCG was commissioned by Hon Nick Smith, the Minister for the Environment. Its core members were Federated Farmers of New Zealand Incorporated, the New Zealand Forest Owners Association, the Royal Forest and Bird Protection Society of New Zealand Incorporated, Environmental Defence Society Incorporated, a representative of the Iwi Chairs Forum through the Pou Taiao Iwi Advisors Group, and representatives from infrastructure industries. Local and central government representatives were involved as active observers.

protecting SNAs in plans takes several years, from assessment to inclusion in plans along with relevant management provisions.

23. The NPSIB identification criteria, which councils must use to assess whether an area qualifies as an SNA, are based on practices of regional councils. Regional councils such as Waikato, Wellington, Canterbury and Otago already include significance criteria within their policy statements. Around two-thirds of councils have some SNAs included in district plans and about half have moderately complete or complete lists of SNAs included. This includes both urban, semi-urban and rural councils (most recently Timaru and Waimakariri).

Ceasing implementation of new SNAs under the NPSIB

24. There is no ministerial power to immediately direct councils to cease carrying out their functions under the RMA, or to immediately cease giving effect to the NPSIB as required by the RMA. Ceasing implementation of SNA provisions in the NPSIB will require an amendment to the NPSIB.

25. The NPSIB can be amended by either:

- a standard process for changing national policy statements in the RMA, or
- a legislative process to amend the NPSIB.

26. Modifying the requirements in the NPSIB to identify and protect new SNAs will not remove the responsibility of councils to fulfil RMA functions to protect significant indigenous biodiversity, nor will it stop councils' existing planning processes as they relate to their functions under the RMA.

27. An NPSIB implementation package to support local government and landowners is already on hold pending direction from you on the future of SNAs.

Implementation of new SNAs could be ceased using RMA processes

28. The standard process for changing national policy statements under the RMA on average takes between one to two years to complete, although it can be done faster depending on the scope of change and level of engagement.
29. The process is initiated by the Minister for the Environment and involves either a Board of Inquiry process or Minister-led process (refer section 46A of the RMA). The Board of Inquiry process is not often used and a Minister-led process is likely to be faster. At a minimum, the process must include notification to the public and iwi authorities, (allowing adequate time for submissions) and a report and recommendations to the Minister on the submissions.

Implementation of new SNAs could be ceased through primary legislation

30. Directly modifying the NPSIB to cease implementation (ie identification) of new SNAs through the next appropriate legislative vehicle is a feasible (and likely faster) option, subject to legislative priorities and House sitting time.

31. This option may carry more reputational and relationship risk - depending upon the timeframes in which primary legislation is pursued, its scope and adequacy of consultation/engagement before enactment.
32. There may be questions around whether this is an appropriate option when there is already a process under the RMA for changing a national policy statement. Members of the Biodiversity Collaborative Group may also be concerned with the choice of this process given the high degree of collaboration on the original policy development.
33. Both options require further legal/policy analysis, which we will provide following direction from you.

Potential choices for cessation under either route

34. We have set out below an overview of two potential approaches that could achieve cessation of the implementation of new SNAs under the NPSIB (amending the NPSIB via either RMA processes or primary legislation):
 1. Requiring councils, from the effective date of the amendment, to cease new SNA identification and related management processes initiated since the NPSIB came in to force. We would need to explore this option in more detail if you are interested in progressing it. Under this option:
 - o Councils would be directed to cease any activities related to work to identify new SNAs including new SNA assessments and any related pre-notification planning processes
 - o This would not apply to significant areas/habitats included in district plans prior to when the NPSIB came into force - for these, councils would still need to change their plans to give effect to the NPSIB management approaches (including exemptions) and have regard to them in resource consent processes
 - o Other provisions in the NPSIB would continue, such as for highly mobile fauna and biodiversity strategies
 - o An amended approach could then be inserted following a review, according to the RMA process.

OR

2. Extending the timeframes for SNA commencement or implementation and signalling a review and changes to the SNA provisions. Councils would likely deprioritise SNA identification if implementation timelines allowed, and if they know that a change is pending. As per option 1 other NPSIB provisions would continue.
35. Early consultation with councils would be appropriate to help clarify implications and confirm what implementation has occurred so far. Early consultation with

Māori would also be appropriate as there may be Treaty settlement considerations in respect of substantive policy proposals.

36. Each of these options would provide time to undertake a further review of the NPSIB (in consultation with stakeholders) to form the basis of further advice on the operation of SNAs as set out in the 100-day plan.
37. We recommend that the process to make changes to the NPSIB should be combined with amendments to other national direction to the extent possible. This would help ensure strategic integration and reduce the number of separate engagement processes across the national direction programme of work.

Treaty of Waitangi analysis

38. Māori have a significant interest in indigenous biodiversity. Some submissions from Māori on the NPSIB opposed SNAs on their land unless they were agreed.
39. The NPSIB strengthens the role of Māori in RMA decision making about indigenous biodiversity and provides a pathway for Māori to identify and protect their taonga species in RMA processes. It requires councils to work in partnership with Māori. It also provides for more flexible provisions that enable development on Māori land due to extensive indigenous biodiversity cover and the historical disadvantages to development faced by Māori.
40. Officials can provide further advice about iwi and Māori groups who would have a particular interest in changes to the NPSIB for early engagement.

Next steps

41. We propose that you discuss this briefing with officials to determine next steps for achieving the commitment to “Begin to cease implementation of new Significant Natural Areas and seek advice on operation of the areas”.

Appendix 1 – NPSIB operational details

The NPSIB as a national policy statement provides:

- direction to councils to identify and protect SNAs according to a set of well-established ecological criteria on all land tenures
- procedures to improve how councils work with landowners, communities and tangata whenua
- management of adverse effects of new activities on indigenous biodiversity
- for activities needed for social, economic and cultural wellbeing – including infrastructure, mining and plantation forestry, and Māori land
- permission for existing activities to continue (including farming and domestic use)
- a strengthened role for tangata whenua in working with councils to manage indigenous biodiversity
- direction on highly mobile fauna, taonga species, biodiversity strategies.

Other aspects of the NPSIB include councils working to restore priority areas that have been degraded over time, developing monitoring plans for the condition and extent of biodiversity to understand what changes are taking place, and increasing indigenous vegetation cover in urban and rural areas.

The SNA identification framework consists of 4 significance criteria, with 2-8 attributes underneath each. These criteria are:

- representativeness - where the remaining biodiversity is typical or characteristic of the ecological district, ie taken together these areas will represent the full range and extent of biodiversity in the district
- diversity and pattern – the extent that the expected natural range of diversity is present in the area
- rarity and distinctiveness – rare, depleted or distinctive species, habitats or ecosystems
- ecological context – how the size, shape and configuration of biodiversity contributes to the wider surrounding landscape and the ability for biodiversity to be maintained.

The adverse effects that must be avoided by new subdivision, use or development in SNAs (clause 3.10(2) are:

- a) loss of ecosystem representation and extent
- b) disruption to sequences, mosaics, or ecosystem function

- c) fragmentation of SNAs or the loss of buffers or connections within an SNA
- d) a reduction in the function of the SNA as a buffer or connection to other important habitats or ecosystems
- e) a reduction in the population size or occupancy of threatened or at risk (declining) species that use an SNA for any part of their life cycle.

The Effects Management Hierarchy is a series of steps which must be addressed by proposals to mitigate their effects. Proposals should first avoid effects, then minimise, then remedy, and finally manage residual effects via offset or compensation. If all adverse effects cannot be mitigated using this hierarchy the activity is not appropriate and should not take place.

The NPSIB focuses on new activities that cause damage to significant biodiversity, but provides dispensation for activities needed for people's social, economic and cultural wellbeing:

- councils are required to work in partnership with landowners, use the best quality information available, and be transparent with their identification process and how any gathered information will be used
- existing activities, like farming and residential activities, can continue in SNAs (RMA existing use rights) and NPSIB provisions for established activities allow ongoing activities if effects do not intensify
- works for public safety, indigenous harvest permitted under the Forests Act 1949, customary use and certain works/activities of the Crown, are permitted in SNAs
- an exception or consent pathway using the effects management hierarchy is provided for specified infrastructure, mineral and aggregate extraction (under certain circumstances), new dwellings on existing empty lots, harvest of indigenous species planted for that purpose and restoration
- activities on QEII and other biodiversity covenanted land can be managed by the covenant so will not necessarily need resource consent, removing process duplication and acknowledging the protection given by biodiversity covenants
- existing pasture maintenance (often undertaken at long term intervals so may not retain existing use rights) can continue, with some conditions
- the NPSIB does not apply to renewable electricity generation and electric transmission assets and activities, awaiting finalisation of amendments to national policy statements on these.

Implementing the NPSIB:

- 5 years to identify and notify policy statement and plan provisions/changes to protect SNAs, 4 years for an ecologist to confirm existing SNAs in plans, 8 years for all other provisions/changes to be notified in policy statements and plans and 10 years to complete regional biodiversity strategies.



Ministry for Primary Industries
Manatū Ahu Matua



Initial briefing: National Policy Statement for Highly Productive Land 2022 (NPS-HPL) and next steps.

Date submitted: 14 December 2023

Tracking number: BRF-3969 (MfE) – B23-0713 (MPI)

Security level: Policy and Privacy

MfE priority: Urgent

Actions sought from Ministers		
Name and position	Action sought	Response by
To Hon Chris BISHOP Minister Responsible for RMA Reform	To note: key features of current NPS-HPL and scope of recent consultation on potential amendments.	22 December 2023
To Hon Todd McCLAY Minister of Agriculture	To note scope of follow up briefing in early 2024 on options for reducing consenting barriers for infrastructure, housing and primary production, including exploring options for Land Use Capability (LUC) 3 to be opened up for housing.	
To Hon Penny SIMMONDS Minister for the Environment		

Actions for Minister's office staff
Forward copy of this briefing to: Hon Chris Penk Minister of Land Information Hon Melissa Lee Minister of Economic Development Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz) and Ministry for Primary Industries (ministerials@mpi.govt.nz)

Appendices and attachments
1. Clause 3.6 of the NPS-HPL 2. Maps of Land Use Capability (LUC) 1-3 around major cities.

Key contacts at Ministry for the Environment			
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Responsible Manager	Jo Burton	022 066 1645	
General Manager	Hayden Johnston	022 153 0221	✓

Key contacts at Ministry for Primary Industries			
Position	Name	Cell phone	First contact
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Responsible Manager	Sophia Murphy (Acting)	022 011 4229	
Director	Charlotte Denny	022-017 4798	✓

Minister's comments	

Initial briefing: National Policy Statement for Highly Productive Land 2022 (NPS-HPL) and next steps.

Key messages

1. This Government has committed to reducing consenting barriers for infrastructure, housing and primary production, including allowing normal rural activities, exploring options for Land Use Capability (LUC) 3 to be opened up for housing. LUC 1-3 land is defined as highly productive land in the National Policy Statement for Highly Productive Land 2022 (NPS-HPL). Enabling more housing on LUC 3 relates to point 24 of the 100-day plan to *'begin work to enable more houses to be built'*.
2. The purpose of this advice is to provide a summary of key features of the current NPS-HPL, the scope of recent public consultation on potential amendments and to advise on the scope of a follow-up briefing in the new year.
3. The NPS-HPL was developed under the Resource Management Act 1991 (RMA) and came into force in October 2022 with the intent to protect highly productive land for land-based primary production (activities that use or rely on the soil).
4. The NPS-HPL also contains a range of exemptions for other non-land-based activities to establish on HPL. The NPS-HPL works alongside the National Policy Statement on Urban Development 2020 (NPS-UD) by ensuring that urban intensification is considered as an option for meeting housing growth whilst also allowing urban expansion to occur where necessary.
5. Officials recently consulted on two potential key changes to the NPS-HPL. These potential changes were to confirm new specified infrastructure (e.g. renewable energy generation) on HPL is enabled and to provide a consent pathway for intensive indoor primary production and greenhouses. Initial analysis of consultation indicates there is support for these amendments to be made by early 2024. This would ensure that normal rural activities are clearly within scope of the NPS-HPL.
6. Meeting Government priorities could involve further amendments to the NPS-HPL or be undertaken as part of a suite of primary legislation amendments. These changes could take up to 18 months depending on the extent of changes, the process chosen, and the requirement for public consultation, cost benefit analysis and Treaty impact analysis to inform considerations.
7. Officials propose to provide follow up advice early in the new year on options for reducing consenting barriers for infrastructure and primary production on HPL. This will include advice on costs, benefits and risks.

Recommendations

We recommend that you:

a. **Note** the key features of the current NPS-HPL is to:

- i. protect HPL for use in 'land-based primary production'
- ii. enable urban expansion to occur on HPL where necessary (paragraphs 17-20 refer).
- iii. provide a number of 'exceptions' that enable 'other' activities to occur on HPL (paragraphs 21 and 23 refer).

Noted

b. **Note** the current NPS-HPL was developed under the RMA jointly by the previous Minister for the Environment and Minister of Agriculture supported by the Ministry for the Environment and the Ministry for Primary Industries who also worked closely with the Ministry of Housing and Urban Development (MHUD).

Noted

c. **Note** the potential amendments to the NPS-HPL to clearly enable new specified infrastructure and provide a consent pathway for intensive indoor primary production and greenhouses on HPL could be completed in early 2024 (due to recent public consultation on these options).

Noted

d. **Note** further reducing consenting barriers for infrastructure and primary production on HPL and opening up LUC 3 for housing in high growth areas could be undertaken via additional changes to the NPS-HPL or primary legislation. The process for amendments to national direction, as set out in the RMA, includes public consultation, cost benefit analysis and Treaty impact analysis.

Noted

e. **Note** officials propose to provide follow up advice in early 2024 on options for reducing consenting barriers for infrastructure, housing and primary production on HPL, including further changes to the NPS-HPL and/or primary legislation processes. This advice will consider costs, benefits and risks associated with each option informed from an analysis of:

- i. The LUC class of land that surrounds high-growth areas, and make up prominent food-growing hubs;

- ii. The scale of LUC mapping, and the underlying data sources that determine LUC classes;
- iii. The impact the NPS-HPL has had on urban expansion proposals to date;
- iv. Implementation considerations for a tiered approach to mapping.
- v. Results of recent consultation on amendments relating to specified infrastructure and intensive indoor primary production and greenhouses
- vi. Feedback on implementation of the NPS-HPL to date
- vii. Impact on Treaty settlements and Te Tiriti o Waitangi.

Noted

- f. **Note** officials will endeavour to coordinate follow up advice with advice on fast-track consenting.

Noted

Signatures

Hayden Johnston
General Manager – Natural Environment Policy (MfE)
Environmental Management and Adaptation
14/12/2023



Charlotte Denny
Director, Natural Resources Policy (MPI)
14/12/2023



Rt Hon Chris BISHOP
Minister Responsible for RMA Reform
[Date]

Rt Hon Todd McCLAY
Minister for Agriculture
[Date]

Rt Hon Penny SIMMONDS
Minister for the Environment
[Date]

Introduction to the NPS-HPL and outline of follow up briefing on amendments

Purpose

1. The purpose of this briefing is to provide you with a summary of the key features of the NPS-HPL and proposed next steps.

Background

2. Highly productive land (HPL) is important for land-based primary production, export and domestic food production. LUC 1-3 land is defined as highly productive land in the National Policy Statement for Highly Productive Land 2022 (NPS-HPL). Such land is typically flat or gently undulating, has inherently fertile soils, and a good climate for growing a range of food and fibre. Approximately 15 percent of New Zealand's land cover is considered highly productive based on the LUC Classification¹.
3. Whilst not as versatile as LUC 1 and 2, LUC 3 does support use in land-based primary production. It is generally flat enough to be used for cultivation and often supports dairy, cropping or grazing. It is also common for LUC 1 and 2 to be surrounded by LUC 3 (see maps in Appendix 2). For these reasons, LUC 3 was included in the definition of HPL - to halt the fragmentation of LUC 3 into smaller land parcels as this could reduce the productive capacity of the land, and to help maintain geographical cohesiveness of HPL.
4. Much HPL is situated close to urban centres because most settlements were originally located near productive land to minimise transportation and labour costs in the supply of fresh produce. This has meant that HPL faces pressures from urban and residential development. This pressure has been most notable in the fastest growing centres Auckland, Hamilton and Christchurch.
5. The 'Our Land 2021' state of the environment report has shown that between 2002-2019 New Zealand has lost a lot of its most productive land due to land fragmentation and urban development, which includes rural lifestyle subdivision and urban expansion².
6. The NPS-HPL was developed to address this loss of HPL whilst also balancing the need to provide for housing growth. It came into effect on 17 October 2022.

¹ LUC 1&2 (the most versatile soils and easiest to cultivate) comprise 5.2% and LUC 3 comprise 9.2%.

² The total **urban area** in New Zealand increased 13% between 2002-2019, half of which was located in Auckland, Waikato and Canterbury. 58% of this urban growth was on LUC 1-3, with approximately 7% being on LUC 1 and 25% each on LUC 2 and 3.

The policy to protect HPL for use in land-based primary production was developed with scope for urban and residential development to occur on HPL (subject to tests) when no alternatives were available. It also provides scope for other land-uses that may not rely on the soil resource (such as supporting activities for land-based primary production) to locate on HPL.

7. A key outcome of the NPS – HPL objective and policies is allocative efficiency. It does not seek to stop rural or urban growth, rather, it seeks to ensure that it occurs in locations not best suited for land-based primary production activities. A cost benefit analysis was undertaken by Market Economics to inform policy development. While the analysis of monetised costs and benefits suggested a negative outcome for the NPS-HPL, a benefit cost ratio was not calculated as it was not possible to estimate non-market values (benefits) of HPL.
8. Public consultation on two potential amendments to the NPS-HPL was recently undertaken (consultation closed 31 October 2023). These potential amendments would clarify the consenting pathway for the development of new specified infrastructure and provide a consenting pathway for intensive indoor primary production and greenhouses on HPL. The amendment relating to specified infrastructure is particularly relevant to applications for solar farms on HPL via fast track consenting under the COVID-19 Recovery (Fast-track Consenting) Act 2020.
9. The Government's commitment to reduce consenting barriers for infrastructure, housing and primary production may involve:
 - a. further changes to the NPS-HPL; and/or
 - b. changes to other national direction (eg NPS-UD); and/or
 - c. changes to primary legislation – either
 - i. Fast Track Consenting legislation or
 - ii. the RMA.

Analysis and advice

Intent and structure of the NPS-HPL

10. The intent of the NPS-HPL is to protect the availability of a finite resource (versatile soils) for use in land-based primary production, both now and for future generations. It does this by:
 - Having a transitional definition of HPL (based on LUC 1-3) with immediate effect on resource consents and plan changes, until HPL is mapped by councils.

- Requiring councils to map HPL within 3 years of gazettal (i.e. by October 2025) and update council plans to reflect the NPS-HPL within two years of completing the mapping.
 - Prioritising HPL for use in land-based primary production (meaning production from agricultural, pastoral, horticultural, or forestry activities, that is reliant on the soil resource of the land)
11. The policy also balances the need to meet housing growth by providing scope for urban development and other activities (that don't rely on the soil resource) where necessary (refer to paragraphs 17-20 below).

How HPL is defined

12. The transitional definition of HPL applies before HPL is mapped. It comprises land that is:
- a. in a general rural zone or rural production zone; and
 - b. predominantly LUC 1, 2, or 3 land; and
 - c. not identified for future urban development when the NPS-HPL commenced (17 October 2022);
13. Additional criteria for mapping HPL is that the land forms a large and geographically cohesive area. HPL maps can also include any land that is or has the potential to be highly productive that is not LUC 1-3. This is to allow for any LUC land that is important for particular crops, such as stone fruits and vineyards, to be included as HPL where that is important to the region.
14. The NZ Land Resource Inventory (NZLRI) provides a source of what land is LUC 1-3 as it is the only national dataset of LUC. Councils are also able to utilise and undertake more detailed LUC mapping and use this information to inform the mapping of HPL in a respective council area. Site specific assessments are also able to be used to inform resource consent applications, including to demonstrate limitations on using particular areas of land for primary production.

When does the NPS-HPL apply?

15. NPS-HPL must be considered when undertaking plan changes including applications to extend urban boundaries onto HPL.
16. In relation to resource consents, consent authorities are required under the RMA³ to have regard to “any relevant provisions of...a national policy statement”. The extent that the NPS-HPL applies to land use and subdivision applications will depend on the circumstances of the case and how the application aligns with other national direction.

³ section 104(1)(b)(iii)

The NPS-HPL and urban expansion (particularly on LUC 3)

17. The design of the NPS-HPL attempted to strike a balance between the protection of HPL and the provision for housing. Under the NPS-HPL, areas identified for future urban development (before the policy took effect) are exempt from being mapped as HPL. This recognised the proposed expansion already identified by councils and the planning and coordination work underway by councils prior to the commencement of the NPS-HPL.
18. The NPS-HPL also provides for circumstances where HPL could be rezoned to enable urban development. This is done via Clause 3.6 which covers an 'urban expansion test'. The full clause is attached as Appendix 1.
19. Clause 3.6 works with the objective of the National Policy Statement on Urban Development 2020 (NPS-UD) by encouraging urban intensification options to be considered to meet housing growth whilst also allowing urban expansion to occur where necessary. The Ministry for Housing and Urban Develop (MHUD) were closely involved in the development of provisions relevant to urban expansion in the NPS-HPL.
20. A more targeted protection of highly productive land may assist urban expansion in high-growth areas, by reducing the area of land that is subject to the 'urban expansion test' under the NPS-HPL (Clause 3.6 of NPS-HPL). Officials propose to provide you with more information on the impact of the NPS-HPL on urban expansion in the new year (section on 'next steps' below refers).

Exceptions for non land-based primary production in the NPS-HPL

21. Existing activities and exceptions for new developments are also provided for in the current NPS-HPL. The range of exemptions for non land-based primary production to occur on HPL comprises:
 - existing activities
 - activities that support land-based primary production
 - activities that address high risks and public safety
 - activities associated with matters of national importance including natural hazards
 - small-scale or temporary activities
 - specified infrastructure
 - aggregate or mineral extraction
 - defence facilities
 - activities on specified Māori land
 - activities undertaken by requiring authorities.
22. Other activities (including urban and residential development) may be considered via a resource consent when there are permanent or long term constraints on that land being used for land-based primary production.

23. New rural lifestyle blocks are strongly discouraged on LUC 1, 2 and 3 under the existing NPS-HPL.

Recent public consultation on potential amendments to the NPS-HPL

24. Public consultation on potential amendments relating to specified infrastructure and indoor intensive primary production and greenhouses closed on 31 October 2023. These changes could help to meet manifesto commitments to reduce possible consenting barriers by:

- confirming that new specified infrastructure (including infrastructure for renewable energy generation/transmission) is enabled on HPL, and
- enabling intensive indoor primary production and greenhouses on HPL, which will also improve climate resilience of the primary production sector.

25. These changes could be completed within a relatively short timeframe (ie early 2024). Risks related to getting this done early in 2024 include alignment with other potential changes to the NPS-HPL, Ministerial priorities and Cabinet scheduling.

Te Tiriti analysis

26. A Treaty impact analysis was prepared as part of the development of the NPS-HPL. No direct conflicts between the final NPS-HPL and existing Treaty settlements were identified.

27. The ability to develop Māori land was an area of particular concern for iwi and councils. Therefore development of 'specified Māori land' on HPL is enabled.

28. Any future amendments to the NPS-HPL will require a Treaty impact analysis to inform considerations.

Next steps

29. Officials propose to provide you with advice on options for reducing consenting barriers for infrastructure, housing and primary production on HPL early next year (2024), including making:

- a. further changes to the NPS-HPL, and/or
- b. changes to other national direction (eg NPS-UD), and/or
- c. changes to primary legislation – either
 - i. Fast Track Consenting legislation or
 - ii. the RMA.

30. Officials propose that this advice will consider costs, benefits and risks associated with each option informed from an analysis of:

- The LUC class of land that surrounds high-growth areas, and make up prominent food-growing hubs;
- The scale of LUC mapping, and the underlying data sources that determine LUC classes;
- The impact the NPS-HPL has had on urban expansion proposals to date;
- Implementation considerations for a tiered approach to mapping.
- The results of the public consultation on potential amendments relating to specified infrastructure and intensive indoor primary production and greenhouses;
- Feedback on implementation of the NPS-HPL to date;
- Impact on Treaty settlements and Te Tiriti o Waitangi.

Appendix 1: Clause 3.6 of NPS-HPL

3.6 Restricting urban rezoning of highly productive land

- (1) Tier 1 and 2 territorial authorities may allow urban rezoning of highly productive land only if:
 - (a) the urban rezoning is required to provide sufficient development capacity to meet demand for housing or business land to give effect to the National Policy Statement on Urban Development 2020; and
 - (b) there are no other reasonably practicable and feasible options for providing at least sufficient development capacity within the same locality and market while achieving a well-functioning urban environment; and
 - (c) the environmental, social, cultural and economic benefits of rezoning outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.
- (2) In order to meet the requirements of subclause (1)(b), the territorial authority must consider a range of reasonably practicable options for providing the required development capacity, including:
 - (a) greater intensification in existing urban areas; and
 - (b) rezoning of land that is not highly productive land as urban; and
 - (c) rezoning different highly productive land that has a relatively lower productive capacity.
- (3) In subclause (1)(b), development capacity is **within the same locality and market** if it:
 - (a) is in or close to a location where a demand for additional development capacity has been identified through a Housing and Business Assessment (or some equivalent document) in accordance with the National Policy Statement on Urban Development 2020; and
 - (b) is for a market for the types of dwelling or business land that is in demand (as determined by a Housing and Business Assessment in accordance with the National Policy Statement on Urban Development 2020).
- (4) Territorial authorities that are not Tier 1 or 2 may allow urban rezoning of highly productive land only if:
 - (a) the urban zoning is required to provide sufficient development capacity to meet expected demand for housing or business land in the district; and
 - (b) there are no other reasonably practicable and feasible options for providing the required development capacity; and
 - (c) the environmental, social, cultural and economic benefits of rezoning outweigh the environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.
- (5) Territorial authorities must take measures to ensure that the spatial extent of any urban zone covering highly productive land is the minimum necessary to provide the required development capacity while achieving a well-functioning urban environment.

Appendix 2: Maps of Land Use Capability (LUC) 1-3 around major cities





Briefing: Confirming the scope and working arrangements of the RMA Reform portfolio

Date submitted: 14 December 2023

Tracking number: BRF - 4003

Security level: In-Confidence

MfE priority: Urgent

Actions sought from ministers		
Name and position	Action sought	Response by
To Hon Chris Bishop Minister Responsible for RMA Reform	Approve the attached letter outlining the proposed scope and working arrangements of the RMA Reform Portfolio Approve the attached delegation letter to Parliamentary Under-Secretary, Simon Court MP Note these letters will be forwarded to the Cabinet Office for approval and finalisation	15 December
CC Hon Penny Simmonds Minister for the Environment	For information	N/A

Actions for Minister's office staff
Forward Appendix 1 to the Cabinet Office, once approved by Minister Bishop. Forward Appendix 2 to the Cabinet Office, once approved by Minister Bishop. Return the signed briefing to Ministry for the Environment (ministerials@mfe.govt.nz) — please send both hard <i>and</i> soft copies to ensure we meet our public record obligations.

Appendices and attachments
- Appendix 1: Letter to Prime Minister Rt Hon Christopher Luxon outlining the scope and responsibilities of the RMA Reform and Environment portfolios. - Appendix 2: Letter of delegation to Parliamentary Undersecretary for RMA Reform. - Appendix 3: Proposed split between the RMA Reform and Environment portfolios.

Key contacts at Ministry for the Environment			
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Chief Advisor	Simon King	0220475541	
Chief of Staff	Martin Workman		✓

Confirming the scope and working arrangements of the RMA Reform portfolio

Purpose

1. This briefing outlines the proposed scope and working arrangements of the RMA Reform portfolio for consideration and approval by the Prime Minister, Rt Hon Christopher Luxon. A draft letter for the Prime Minister is at **Appendix 1**.
2. This briefing also provides advice on delegations to the Parliamentary Under-Secretary to the Minister Responsible for RMA Reform, Simon Court MP. A draft delegation letter to Mr Court using the template provided by the Cabinet Office is at **Appendix 2**.

Background

3. In your appointment letter dated 29 November 2023, the Prime Minister Rt Hon Christopher Luxon asked you to provide a detailed proposal for the scope and working arrangements of the RMA Reform portfolio. He also asked you to prepare a draft delegation letter for the Parliamentary Under-Secretary to the Minister Responsible for RMA Reform in accordance with section 9 of the Constitution Act 1986.
4. Officials provided you with initial advice on these matters on 4 December [BRF-3977 refers].
5. On 13 December 2023, you met with Hon Penny Simmonds, Minister for the Environment, to discuss this advice and confirm the split of responsibilities between the RMA Reform portfolio and the Environment portfolio.
6. Our understanding of your agreed split of responsibilities is at **Appendix 3**. This split also notes the specific statutory responsibilities for the Minister of Oceans and Fisheries and the Minister for Conservation under the Resource Management Act 1991.

Advice

7. The proposal for the Prime Minister's consideration requires the Minister Responsible for RMA Reform to play a leadership role in setting the strategic direction for the environmental management system and facilitating integration between and across other Ministerial portfolios.

8. You will take responsibility for:

- convening an RMA Reform Ministers Group
- integrating across the RMA Reform and Environment portfolios
- progressing all phases of RMA reform legislation
- strategic direction, priorities and coordination of the RMA National Direction work programme
- spatial planning
- specific instruments related to achieving housing and infrastructure outcomes, including Medium Density Residential Standards (MDRS)
- National Policy Statements on Urban Development, Highly Productive Soil, Natural Hazards, and Renewable Electricity Generation
- National Policy Statement on Freshwater Management (NPS-FM) and the corresponding National Environmental Standard on Freshwater (NES-F).

9. While you would hold the primary instruments for setting the broad direction for freshwater policy (the NPS-FM and NES-F), responsibility for the farm-facing instruments that direct certain aspects of freshwater policy will be delegated to Associate Minister for the Environment Hon Andrew Hoggard. This would include freshwater farm plans, stock exclusion regulations, the national environment standards for sources of human drinking water and new national direction on water storage. We are providing separate advice to the Minister for the Environment on this delegation.

10. You will also take responsibility for Māori rights and interests and the relationship with the National Iwi Chairs Forum (NICF), supported by the Minister for the Environment. Your office would lead on OPQs, WPQs, OIAs, and Correspondence that relate to Pou Taiao and Freshwater.

Delegation to the Parliamentary Under-Secretary to the Minister Responsible for RMA Reform

11. We recommend you delegate responsibility for to the Parliamentary Under-Secretary to the Minister for RMA Reform for developing:

- national direction policy on infrastructure policies, objectives, and standards
- national direction on offshore wind energy generation.

12. A draft letter that reflects these proposed delegations is at **Appendix 2**.

Recommendations

We recommend that you:

a. **Note** that the Prime Minister Rt Hon Christopher Luxon has asked you to prepare:

- a detailed proposal for the scope and working arrangements of the RMA Reform portfolio
- a draft letter of delegation for the Parliamentary Under-Secretary to the Minister Responsible for RMA Reform

b. **approve** the draft letter to Prime Minister Rt Hon Christopher Luxon (Appendix 1) detailing the scope and working arrangements of the RMA Reform Portfolio and the Environment Portfolio (Appendix 3)

Yes | No

c. **approve** the draft letter of delegation to Simon Court MP setting out his delegations as Parliamentary Under-Secretary to the Minister Responsible for RMA Reform

Yes | No

d. **direct** your office to forward the letters (if approved) to the Cabinet Office to be considered and finalised by the Prime Minister, in accordance with the process outlined in his letter of 29 November

Yes | No

e. **agree** that your office would lead on OPQs, WPQs, OIAs, and Correspondence that relate to Pou Taiao and Freshwater.

Yes | No

Signatures



Simon King
Chief Adviser
Office of the Chief Executive
6 December 2023

Hon Chris Bishop
Minister for RMA Reform
Date

Appendices

Please see appendices as attached via email to the Minister's office.

Rt Hon Christopher Luxon
Prime Minister
Parliament Buildings

Dear Prime Minister,

In your letter dated 29 November 2023, you requested a detailed proposal on the scope and working arrangements of the RMA Reform Portfolio. I have worked with the Minister for the Environment and my officials to refine the roles and responsibilities for this new portfolio, as outlined in the table enclosed with this letter.

As the Minister Responsible for RMA Reform, I will take a leadership role in setting the strategic direction for the environmental management system and facilitating integration between and across other Ministerial portfolios.

I will retain responsibilities for RMA reform legislation, spatial planning, National Direction strategy, Urban/Housing/Infrastructure National Direction Instruments, and Medium Density Residential Standards. I will lead legislative amendments to the Resource Management Act 1991.

The Minister for the Environment will retain responsibility for environmental reporting, the oversight of the Environmental Protection Agency, Hazardous Substances and New Organisms and Waste Minimisation, Jobs for Nature, and statutory functions under the Resource Management Act 1991. They will also be responsible for rural related National Direction instruments and Orders in Council made under the Severe Weather Emergency Recovery Legislation Act 2023.

There are also specific statutory responsibilities for the Minister of Oceans and Fisheries and the Minister for Conservation under the Resource Management Act 1991.

I will hold responsibility for the instruments that set the broad direction for freshwater policy, the National Policy Statement – Freshwater Management and National Environmental Standards – Freshwater. I will work closely with the Associate Minister for the Environment Hon Andrew Hoggard who will be delegated responsibility for the farm-facing instruments that direct critical aspects of freshwater policy. This includes freshwater farm plans, stock exclusion regulations, the national environment standards for sources of human drinking water and new national direction on water storage.

I will take the lead on Māori rights and interests and the relationship with the National Iwi Chairs Forum (NICF), with support from the Minister for the Environment.

I also propose convening an RMA Reform Ministers Group, which will meet regularly to ensure our resource management system is integrated and aligned.

I believe the scope and working arrangements for the RMA Reform portfolio outlined will enable the Government to meet our commitments in our 100-day action plan and coalition agreements, as well as delivering better housing and infrastructure for all New Zealanders.

Yours sincerely,

Hon Chris Bishop
Minister Responsible for RMA Reform

Simon Court MP
Parliamentary Under-Secretary to the Minister Responsible for RMA Reform
Parliament Buildings

Dear Parliamentary Under-Secretary,

Congratulations on your appointment as a Parliamentary Under-Secretary in relation to the Office of the Minister Responsible for RMA Reform.

As you know, Parliamentary Under-Secretaries are appointed by the Governor-General, by warrant, under section 8 of the Constitution Act 1986. Their role is to assist Ministers, and their authority derives from the Minister they are assisting. Parliamentary Under-Secretaries exercise those functions and powers assigned to them by the relevant portfolio Minister, in accordance with section 9 of the Constitution Act.

As the relevant Minister in relation to your Parliamentary Under-Secretary role in the RMA Reform portfolio, I set out below a description of your role in the portfolio, your specific responsibilities, and relevant working arrangements.

Functions and responsibilities

In accordance with section 9 of the Constitution Act, I assign the following responsibilities to you:

National direction policy on infrastructure policies, objectives, and standards

Matters relating to the development of new national direction policy on infrastructure policies, objectives, and standards.

Offshore wind

Matters relating to the development of new national direction on offshore wind energy generation.

This responsibility does not include amendments to the National Policy Statement for Renewable Energy Generation 2011 which I will continue to lead on with the Minister of Energy.

Ministerial correspondence

Responsibility for responding to correspondence about matters within my portfolio that is referred to your Office.

Other initiatives

Any other initiatives as agreed from time to time by us.

As the portfolio Minister, I will retain direct control of all matters within the RMA Reform portfolio, including matters which have been specifically assigned to you.

The above matters are subject to the conditions set out in this letter. Please also refer to the relevant provisions of the Cabinet Manual, in particular paragraphs 2.48-2.51 (relating to Parliamentary Under-Secretaries) and other general provisions in Chapter 2 relating to conduct, public duty, and personal interests.

Financial and statutory responsibilities

Hon Penny Simmonds (Minister for the Environment) and myself (Minister for RMA Reform) will have final responsibility for, and overall control of, the Ministry for the Environment and all Crown entities within the portfolio. We are also responsible for Vote Environment and for all relevant statutory functions of the Minister.

Policy

Any significant policy decisions should be discussed with me.

Public Statements

I expect you to take responsibility for all general Ministerial correspondence regarding your areas of responsibility (your letters should commence with wording such as “The Minister Responsible for RMA Reform has asked me to respond to you on ...”).

However, Ministerial correspondence concerning significant policy issues should be prepared by the Ministry for the Environment for my signature, where appropriate.

I will make public statements on policy issues.

My Office can provide assistance with media, communication strategies or talking points if you require.

From time to time, I may ask you to meet with individuals and groups to make speeches or statements on my behalf.

Relations with the Ministry for the Environment

You may contact the Ministry for the Environment on all matters for which you have delegated responsibility. All such inquiries should be made via the Chief Executive.

I expect to be kept fully informed of all significant issues and the Secretary for the Environment is free to raise any matter concerning your delegated responsibilities with me.

You are welcome to attend regular briefing sessions with departmental officials that are held in my office [at time/day of week]. You may arrange, through my office, to have your own regular briefing sessions or ad hoc meetings with departmental officials to discuss matters relating to your areas of responsibility. A designated member of my office may attend any such meeting.

You may wish to discuss with the Secretary for the Environment on the support that the Ministry for the Environment can provide your Office.

Communications between us

You should ensure that I am fully briefed on the actions that you think are necessary to undertake in relation to your delegated responsibilities. All significant papers, letters, and directions to the Ministry for the Environment should be copied to me for my information. In particular, you need to ensure I receive the earliest warning of any issues that have the potential to become controversial.

I will keep you informed of my actions that relate to your areas of responsibility. I will consult you on policy issues, and any matters related to the implementation of the RMA Reform portfolio generally.

To ensure maximum co-operation and co-ordination, I propose that we meet regularly to co-ordinate our actions and to share views and ideas.

Cabinet and Cabinet committee papers

The rules on the submission of papers to Cabinet and Cabinet committees are set out in chapter five of the Cabinet Manual. In relation to any Cabinet and Cabinet committee submissions relevant to your area of responsibility, the paper should be signed out jointly by you and me.

If you are a member of a Cabinet committee, you will have access of the submissions and minutes of that committee (for example, via Cabinet). You will also receive submissions and minutes on matters relating to your delegated responsibilities that are dealt with at other Cabinet committees.

You are bound by the principle of collective responsibility detailed in section 5.31 of the Cabinet Manual, except as provided in sections 5.26 - 5.30.

Information held by you as Parliamentary Under-Secretary

All information held by you in relation to your Parliamentary Under-Secretary responsibilities will be held by you on behalf of the Minister Responsible for RMA Reform. All Official Information Act requests in the areas of your delegated responsibility should be directed to me, as the portfolio Minister. I may seek your assistance in responding to such requests.

Similarly, you will be treated as my agent, where necessary, for the purposes of the Privacy Act 2020.

Parliamentary Responsibilities

As a Parliamentary Under-Secretary, you are not subject to Standing Order 388 which guides oral questions to Ministers; you can only be asked oral questions in the House in the same way that any MP who is not a Minister can be questioned (Standing Order 389). However, you may answer questions on my behalf in the same way that Associate Ministers can answer (Standing Order 395(2)).

Next steps

A summary of the above delegations will be included in a *Schedule of Responsibilities Delegated to Associate Ministers and Parliamentary Under-Secretaries*. The Schedule will be presented to the House of Representatives to clarify Ministerial accountability (so that, for example, Parliamentary questions can be directed to the appropriate member).

I look forward to working with you in the RMA Reform portfolio. Please do not hesitate to discuss these delegations with me at any time.

Yours sincerely,

Hon Chris Bishop
Minister for RMA Reform

Copy to: Minister for the Environment
 Secretary of the Cabinet
 Secretary for the Environment

Appendix 2 – Proposed split between the RMA Reform and Environment portfolios

RMA Reform	Environment	Oceans & Fisheries	Conservation
Hon Chris Bishop Minister of Housing Minister for Infrastructure Minister for Sport and Recreation Leader of the House Associate Minister of Finance	Hon Penny Simmonds Minister for Disability Issues Minister for Tertiary Education and Skills Associate Minister for Social Development and Employment	Hon Shane Jones Minister for Regional Development Minister for Resources Associate Minister of Finance Associate Minister for Energy	Hon Tama Potaka Minister of Conservation Minister for Māori Crown Relations: Te Arawhiti Minister for Māori Development Minister for Whānau Ora Associate Minister of Housing (Social Housing)
• <i>Chair of RMA Reform Ministers Group</i>¹ • Lead Minister for integration across the RMA Reform/Environment portfolios • RMA reform legislation (including Māori rights & interests): ○ Repeal NBA and SPA ○ Fast-track Bill plus targeted RMA amendments ○ Longer-term amendments • Spatial planning, including relationship with City and Regional Deal • Māori rights and interests and the relationship with the National Iwi Chairs Forum (NICF) (supported by Minister Simmonds) • National Direction strategy, coordination and prioritisation • Urban, Housing and Infrastructure related National Direction Instruments: ○ National Policy Statement – Urban Development ○ National Policy Statement – Highly Productive Land ○ National Policy Statement – Freshwater Management ○ National Environmental Standards - Freshwater ○ National Policy Statement – Renewable Electricity Generation ○ National direction on infrastructure – existing policy progress (e.g. NPS-REG) and new national direction (e.g. policies, objectives and standards for infrastructure) ○ Proposed NPS Natural Hazards • Medium Density Residential Standards	• Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 • Environment Act 1986 • Environmental Protection Act 2011, including oversight of the EPA • Environmental Reporting Act 2015 • Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 • Hazardous Substances and New Organisms Act 1996 • Litter Act 1979 • Waste Minimisation Act 2008 • Ozone Payer Protection Act 1996 • Soil Conservation and Rivers Control Act 1941 • Resource Management Act 1991 statutory functions (legislative amendments led by Minister of RMA reform) • Jobs for Nature • Ministerial Land Use Inquiry (Jointly with Minister for Forestry) • Orders in Council made under the Severe Weather Emergency Recovery Legislation Act 2023 Rural related National Direction instruments: • National direction – Water Storage • National Environmental Standards – Drinking Water • Freshwater Farm Plans • Biodiversity (NPS-IB and biodiversity credits) • Forestry (NES – Commercial Forestry, and other Forestry national direction if developed)	• <i>Chair of Oceans & Fisheries Ministers Group</i> • Resource Management Act 1991 statutory functions as Minister of Aquaculture • National direction related to aquaculture including: ○ National Environmental Standards for Marine Aquaculture 2020	• Resource Management Act 1991 functions as Minister of Conservation in relation to: ○ the mandatory NZ Coastal Policy Statement ○ approving Regional Coastal Plans ○ the Coastal Marine Area more broadly

¹ Recommend that this group could include:

Hon Chris Bishop (Chair), Hon Penny Simmonds, Hon Shane Jones, Hon Tama Potaka, Hon Simeon Brown (Energy, Local Government, Transport, Auckland), Hon Todd McClay (Agriculture, Forestry, Hunting and Fishing), Hon Melissa Lee (Economic Development), Hon Simon Watts (Climate Change), Hon Andrew Hoggard (Associate Environment, Associate Agriculture)



Secondary briefing: Outcomes and evidence

Date submitted: 19 December 2023

Tracking number: BRF-4045

Security level: IN-CONFIDENCE

MfE priority: Urgent

Actions sought from Ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny SIMMONDS Minister for the Environment	Consider contents of briefing.	21 December 2023

Actions for Minister's office staff

Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Attachments

1. Outcomes and evidence slide pack (PowerPoint)
2. Environmental snapshot A3

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Marny Dickson	027 200 0487	
Chief Advisor	Jennifer Hutcheon	027 283 3217	
Deputy Chief Executive	Natasha Lewis	027 694 6278	✓

Minister's comments

Secondary briefing: Outcomes and evidence

Key messages

1. The attached slide deck (Appendix 1) provides you an overview of the potential to improve New Zealand's environment evidence base. You have an opportunity to address this historic gap and ensure public and private investments in our natural and built environments are informed by evidence, can demonstrate they are getting results, and that people and businesses are empowered to generate new innovative opportunities.
2. While able to provide a national snapshot of our environment (such as that in Appendix 2), there is consensus that environmental information is inadequate. Gaps in data and knowledge prevent communities, resource users and others from making robust decisions and from understanding the effectiveness of interventions. Addressing this provides the basis for building an "environmental investment" approach to parallel that of social investment.
3. Based on our understanding of the Government's aspirations for this part of the Environment portfolio, and the needs and challenges in the system, work can be advanced to:
 - i define the enduring environmental and climate outcomes you want to achieve
 - ii direct research investments to have a more positive impact on environmental and climate outcomes
 - iii focus existing efforts to collect the data required to make better informed decisions (from central government to resource users on the ground)
 - iv create data standards to ensure high quality data
 - v enable wider sources to contribute, such as local knowledge
 - vi make data more easily accessible and useable by all who may benefit
 - vii increase transparency and accountability
 - viii improve national environmental reporting.
4. The contents may prove useful for your meeting with the Parliamentary Commissioner for the Environment on 21 December 2023. The accompanying briefing BRF-4044 provides more specific information on the matters he is likely to raise with you.
5. We plan to provide you a series of briefings in the new year with further information on both statutory reporting requirements (such as those required by the Environmental Reporting Act 2015) and the specific opportunities in this part of your Environment Portfolio. We welcome your direction on particular information you are interested in, and your preferred sequencing of this.

6. We look forward to meeting with you and discussing how we can best support you to achieve the Government's priorities for improving environmental outcomes.

Recommendations

We recommend that you:

- a. **note** the contents of this briefing provide background information for your 21 December 2023 meeting with the Parliamentary Commissioner for the Environment
- b. **indicate** to officials any particular further information you are interested in, and your preferred sequencing of this
- c. **meet** with officials for further discussion.

Yes | No

Signatures



Natasha Lewis
Deputy Chief Executive
Strategy, Stewardship and Performance
19 December 2023

Hon Penny SIMMONDS
Minister for the Environment

Date

Attachments

Please see attachments as attached via email to the Minister's office.

Attachment 1: Outcomes and evidence slide pack (PowerPoint)

Attachment 2: Environmental snapshot A3

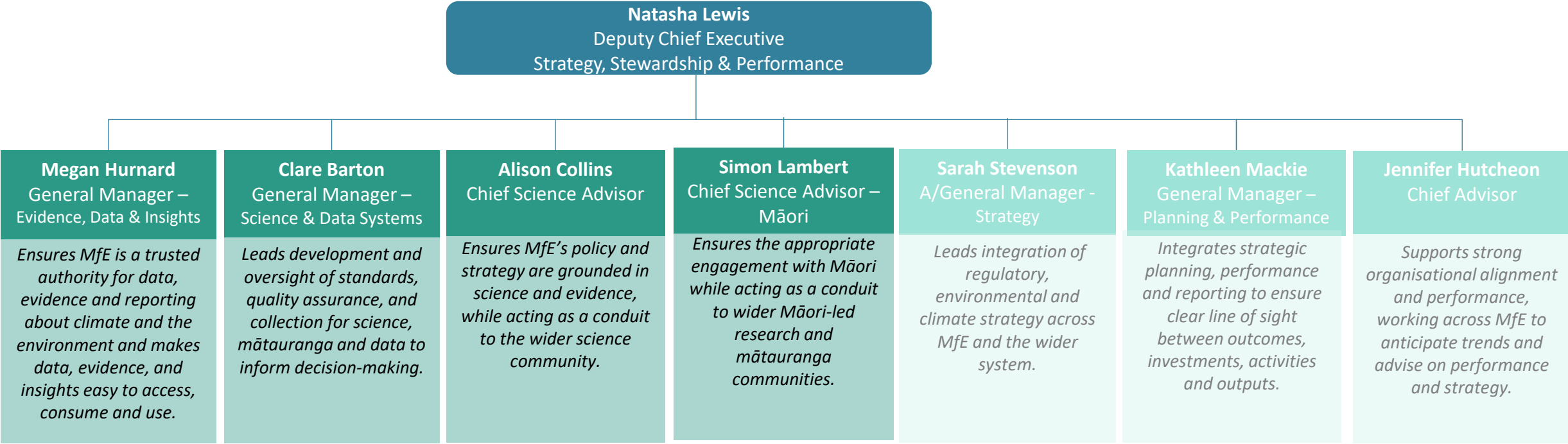
Outcomes & evidence

Empowering people to make good choices



Ministry for the
Environment
Manatū Mo Te Taiao

1. Meet the team



We work across the other areas of the Ministry, including under portfolios of other Ministers

- Climate adaptation
- Climate emissions
- Resource management
- Biotechnology
- Waste & resource efficiency
- Biodiversity
- Freshwater
- Marine

2. Coalition agreement commitments

Based on the coalition agreements, we understand these are key priorities that relate to outcomes and evidence

Improved use of data, evidence and technology to deliver better environmental outcomes

Productive and responsible management of resources within limits

Making information available to help people make informed decisions

Collection of real-time data for decision-makers, including tracking performance

The coalition agreements and *Blueprint for a Better Environment* identified the following priorities for data and evidence:

1. **Making high-quality information and data more broadly available** to property owners, local government, infrastructure owners, insurers and other decision-makers (eg, info on risks)
2. **Tracking performance** to deliver results, improve approach, and ensure accountability
3. Encouraging and incentivising **investment in new technology** and approaches¹ to address issues such as emissions and carbon offsets
4. **Increased use of science and technology**² to progress outcomes, set practical objectives, measurable targets, track performance, and maximise results
5. Developing **data standards** to improve data collection and sharing, and to help deliver upon key targets (eg, Predator Free 2050)
6. Collection of **real-time data** to provide reliable information for decision-makers (including addressing knowledge gaps)
7. A “**no duplication**” rule to ensure government agencies share data and reduce burden on the private sector (eg, farmers).

We would like to discuss the status of these priorities with you to direct our work programme.

¹ including uptake of emissions mitigation technology, and carbon sequestration. ² investigating strategic opportunities in New Zealand's resources, including natural gas, natural geological hydrogen, and vanadium.

3. Objectives for improving the evidence base

Based on coalition agreements and *Blueprint for a Better Future*, potential objectives for work to improve the evidence base are:

- **Outcomes-driven:** Investment and action in monitoring, science and emerging technologies are targeted to improving environmental outcomes and demonstrating results. This enables targets to be set and tracked, prioritisation to occur, and progress-to-outcomes evaluated to support course-correction, continuous improvement and build public confidence.
- **People-focussed:** Ensuring decision-makers at various scales (national, regional and community including Māori, farmers and property owners) can access and benefit from the information they need to make well-informed decisions and drive action (including preparation and responsiveness for climate resilience and adaptation).
- **Enable contribution:** Enable regions, communities, Māori, primary producers, businesses and others to contribute to our growing environmental evidence base, including local knowledge
- **Better quality information:** Information is high quality and trustworthy, and can be translated into coherent insights that recognise the interconnected nature of the environment.
- **Maximising impact:** Effort is targeted to achieve the greatest positive impact, ensuring efficiency (especially reducing duplication) and effectiveness, and stimulating innovative solutions.

We look forward to testing these objectives with you, to enable us to shape the work programme to reflect your goals.

4. Evidence context: the need, and challenges

Science, data and evidence **underpin good environmental management**: *“You can’t manage what you don’t measure.”*

Making this knowledge available to empower all environmental decision-makers (from farmers to local, regional and central government) enables them to make decisions that maximise economic and environmental outcomes and understand the impact of these decisions.

MfE has a unique mandate, from both legislation and partners like local government, to lead improvements around what knowledge is built, how information is collected and how it is shared. We aspire to use this mandate to empower people to make good choices around our natural and built environments to work and live well.

There are specific **challenges** with environmental data to be addressed:

1. **Inadequate evidence base**, leading to policies and rules that can target the wrong things
2. **Unclear or unagreed environmental outcomes** and targets, making it difficult to focus effort where needed, progress targeted support or interventions, or evaluate progress
3. **A fragmented environmental monitoring network and incomplete national data sets**, leading to both evidence gaps and duplication of effort.

Current issues with environmental data limit the ability of decision-makers to make the good choices they want to, both proactive and reactive.

For example, extreme weather events are occurring with increasing frequency leading to a greater need for accurate environmental spatial data sets to support response and recovery, as well as for risk assessment and adaptation planning.



5. Context continued

Many of the **challenges** have arisen because there is:

1. **No cohesive legislative framework** to drive national monitoring and difficulties in holding institutions to account for their contribution to collecting and maintaining critical data assets
2. A **legacy of disparate data systems** across government, industry and communities, making it difficult to bring together existing information and initiatives, and difficult to share information
3. **No system or national tools to access data**, which means evidence may be difficult to obtain, or be out-of-date leading to longer and more complex course-correction.
4. **Sustained under-investment and capacity constraints** in environmental data and monitoring, particularly in comparison to social and economic reporting, with impacts on decision-making, performance tracking, and documenting return on investment
5. A resource management system overly focussed on **process, not outcomes**
6. **Weak incentives** for organisations to work together towards outcomes.

Alongside these ongoing challenges are **trends** that are simultaneously raising expectations and making significant improvements easier:

1. advances in commercially available mapping tools and remote sensing are driving a greater need and expectation for high quality up-to-date environmental data
2. more data sharing initiatives from the Regional government sector and CRI's (eg, LAWA, National Environmental Data centre)
3. greater reporting demands from consumers and businesses, especially overseas
4. higher expectations for data availability for wider variety of users
5. technological tools for data analysis, modelling and reporting are rapidly developing



6. Opportunities

There are a range of opportunities to improve the evidence base, including:

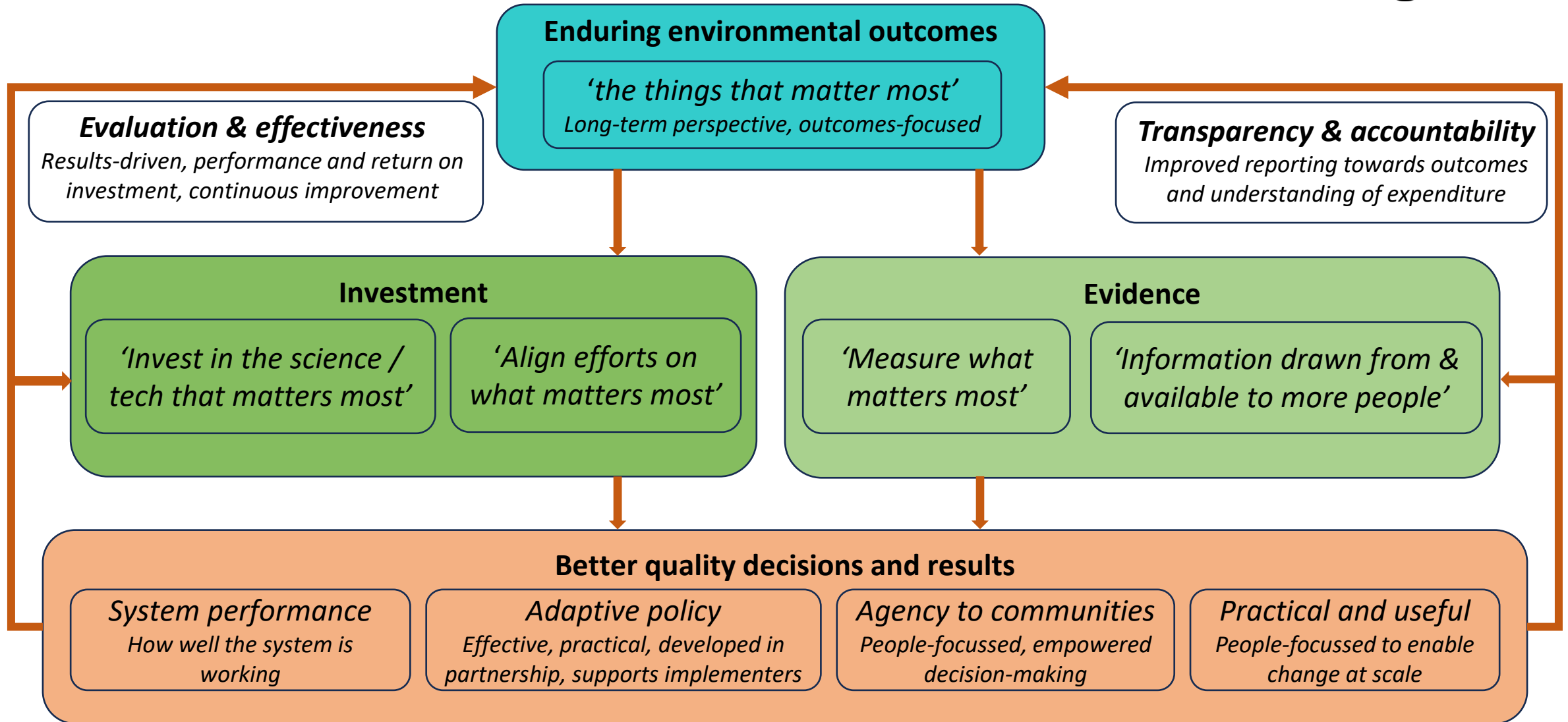
1. **Leveraging and aligning data to social and economic sector approaches** to help expand and improve the environmental knowledge and data systems, and deliver economic, social, and environmental benefits
2. Increased interest in sharing data and jointly building **data systems that talk to each other**, joined to the Integrated Data Infrastructure which underpins the social investment approach
3. Better capture local knowledge and **amplify pockets of data collection and sharing excellence**
4. Support for developing and piloting of **locally-designed solutions** and research with partners in communities, industry, research, Māori and local government that deliver local and national environmental objectives and outcomes
5. Supporting **spatial planning and city/regional infrastructure deals** by identifying opportunities and tracking results across integrated outcomes (eg, environmental, climate resilience, housing, economic, social etc.)
6. **Smarter technology use** to improve system performance and outcomes, including:
 - AI assisting with resource management system capacity and capability constraints, and improving environmental monitoring data
 - real time data through technology such as satellites and drones
 - digital Twin data exchange, with a focus on urban environments and infrastructure
 - national earth observation-based land monitoring system to support fire threat analysis, coastal protection and carbon sequestration.

Making the most of these opportunities will benefit from involvement from a range of Ministers, in particular Minister Bishop (RMA Reform, Housing, Infrastructure), Minister Brown (Local Government, Transport and Energy), Minister Collins (Science Innovation and Technology, Space, and Digitising Government), Minister Potaka (Conservation and Māori Crown Relations: Te Arawhiti), and Minister Watts (Climate Change).



7. A better approach to the environmental knowledge system

Laying the necessary foundations for good choices and better outcomes



8. Relevant requirements: focus on evidence

Monitoring & reporting

- Environmental Reporting Act:** Report on the state of different aspects of the environment every six months and on the environment as a whole every three years
- Resource Management Act:** Monitor the effect and implementation of the RMA, including any regulations in force under it. Monitor and investigate, in such manner as the Minister thinks fit, of any matter of environmental significance.
- Climate Change Response Act 2002:** Prepare and report annually on the greenhouse gas inventory.
- Public Service Act 2020:** Produce a Long-term Insights Briefing every three years.
- Waste Minimisation Act 2008:** Support Minister’s regular review of effectiveness of Levy.

Support robust analysis of regulatory systems

- Resource Management Act 1991:** Effects of the use, development, or protection of natural and physical resources. Consideration of national significance. Anything which, because of its uniqueness, or the irreversibility or potential magnitude or risk of its actual or potential effects, is of significance to the environment of New Zealand
- Environmental Protection Act 2011, Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, Hazardous Substances and New Organisms Act 1996, Litter Act 1979, Waste Minimisation Act 2008, Ozone Layer Protection Act 1996, Soil Conservation and Rivers Control Act 1941, Orders in Council made under the Severe Weather Emergency Recovery Legislation Act 2023**

Environment Act 1986

The Act ensures that, in the management of natural and physical resources, full and balanced account is taken of—

- i. the intrinsic values of ecosystems; and
- ii. all values which are placed by individuals and groups on the quality of the environment; and
- iii. the principles of the Treaty of Waitangi; and
- iv. the sustainability of natural and physical resources; and
- v. the needs of future generations

Relevant Ministry functions [s31] include:

Advise the Minister on all aspects of environmental administration, including policies for influencing the management of natural and physical resources and ecosystems so as to achieve the objectives of this Act

Solicit and obtain information from any source, and to conduct and supervise research, so far as it is necessary for the formulation of advice to the Government on environmental policies:

Provide the Government, its agencies, and other public authorities with advice on —

- the application, operation, and effectiveness of specified Acts in relation to the achievement of the objectives of this Act
- the identification and likelihood of natural hazards and the reduction of the effects of natural hazards:

Provide and disseminate information and services to promote environmental policies, including environmental education and mechanisms for promoting effective public participation in environmental planning

Regulatory Stewardship

Public Service Act 2020

Under s12, required to **uphold public service principle of *stewardship***, which includes institutional knowledge and information, systems and processes, and the **legislation administered by agencies.**

Expectations on agencies: adopt whole-of-system view and a proactive, collaborative approach to the care of the regulatory systems.

Monitoring, reviewing and reporting on existing regulatory systems

Monitor performance and condition of system and regulatory environment it operates in.

Review the system to determine whether it is fit for purpose, and likely to remain so in the medium to longer term.

Use available monitoring and information to proactively identify and assess, and then report or address, problems, vulnerabilities, and opportunities to improve the design and operation of that system.

Robust analysis and implementation support for changes to regulatory systems

Provide advice on robustness of proposed change, including identifying nature and cause of problem to address, drawing on operational intelligence and available monitoring or review information.

Good regulatory practice

Provide accessible, timely information and support to help regulated parties understand and meet their regulatory obligations.

Develop working relationships to share intelligence and co-ordinate activities to help manage regulatory gaps or overlaps, minimise the regulatory burden on regulated parties, and maximise the effective use of scarce regulator resources.

9. The next three years

Based on our understanding of the Government's aspirations for this part of the Environment portfolio, we recommend you:

To March 2024

1. Confirm **your objectives** for the environmental data system, and our proposed approach and priorities
2. Advance tagging of central government **expenditure to outcomes** to drive alignment of effort and investment, better evaluation of progress, and better value for money, with an early opportunity through the Government's required response to the Environment Committee's freshwater inquiry
3. Respond to the **Parliamentary Commissioner for the Environment's recommendations** for amendments to the Environmental Reporting Act 2015 for further improvements to environmental reporting
4. Provide direction on work to establish a more **effective, targeted, and efficient** environmental monitoring and reporting system

March– December 2024 and beyond

1. Advance **data standards** and requirements to improve the information base and enable others (non-govt) to access and contribute
2. Better **target existing science investments** through an environment and climate research strategy
3. Development of **environmental indicators** to focus effort on collecting the information that matters
4. Building **monitoring framework** to ensure decisions-makers are confident in the robustness of what indicators are telling them
5. Explore various **digital and technology opportunities**, including interoperability standards and sharing protocols, more efficient consenting and planning, real-time catchment data, and ensuring no government data collection duplication

Long-term (2025 to 2026)

1. Set the direction for the longer-term actions needed beyond this term.

We look forward to providing you more specific advice on these opportunities.



Ministry for the

Environment

Manatū Mō Te Taiao

Environmental snapshot

Climate change

Our emissions are not decreasing fast enough

19% ↑ the increase in our gross emissions between 1990 and 2021. Our emissions peaked in 2006.

6% ↓ the decrease in our gross emissions since 2006.

We are not on track to meet NZ's target of reducing net emissions to 50% below 2005 levels by 2030

Our air temperature will continue to rise

Between 1909 and 2020

+1.26°C the increase in our annual average air temperature

Temperature rise causes:

- more frequent and severe extreme weather events
- glacial retreat
- sea-level rise
- large die-off of plants and animals

Socio-economic impacts escalate with every increment of warming

Agricultural drought frequency increased at

15 out of **30** sites across NZ

Costs estimated at

\$4.8 billion

from the two major drought events of 2007-08 and 2012-13

Coastal and marine

Sea-level rise is accelerating

Between 1961 and 2020, the mean sea level rise rate

+20cm

the average sea level rise around NZ compared to a century ago

doubled at 3 out of 4 monitoring sites, compared to the period from 1901 to 1960

Adapting to sea-level rise

At risk from coastal flooding in 2022:

72K People **49.7K** Buildings **191** Marae

A 20 to 30 cm sea-level rise above present-day levels is expected in the next 30 years, **exposing billions of dollars worth of infrastructure** to flooding and damage

Our ocean is warming to record levels and becoming more acidic

Between 1981 and 2018, the sea surface temperature increased between

+0.1 and **+0.2°C**

per decade across our four oceanic regions

Between 1998 and 2020 ocean acidity increased

8.6%

on average in NZ's subantarctic surface waters

Ocean warming and acidification can impact:

- marine habitats like kelp forests
- calcification rates of corals and molluscs
- species migration and/or survival

With consequences for:

- our biodiversity
- our marine economy

Land and freshwater

Highly productive land is scarce and decreasing

15%

of NZ's total land area (~3,830,000ha) is highly productive, mostly on city fringes

Between 2002 and 2019 over

37,000 ha

of highly productive land was repurposed for housing, with significant impacts for our horticulture

Intensive land management has increased

Between 1991 and 2019, the estimates of nitrogen applied to land in fertiliser increased by

629%

(from 62,000 to 452,000 tonnes)

Between 2002 and 2019, the area of irrigated agricultural land

doubled

with the majority in Canterbury

Risks include **soil degradation**: between 2014 and 2018

80% of measured sites failed to meet the targets for at least 1 of the 7 soil quality indicators

Food is a vital but vulnerable sector of NZ's export economy

The food and fibre sector accounted for:

\$57.4 billion

in export revenue expected for the year to June 2023

10.7%

GDP in the year to March 2021

78.9%

of the total \$72.8 billion in export goods to June 2023

\$700M to \$1.1B

the expected cost of the food and fibre sector's recovery from Cyclone Gabrielle

Our freshwater is degraded

Between 2016 and 2020

62%

of 101 monitored lakes across NZ showed **poor or very poor health**

Between 2016 and 2020

84%

of monitored river water quality sites had median concentrations for at least one form of nitrogen which suggested a **risk of environmental impairment**

Between 2016 and 2020

25%

of monitored river water quality sites had **severe organic pollution or nutrient enrichment**, while only 6% showed pristine conditions or almost no organic pollution

With consequences for how we use it

Between 2016 and 2020

66% of monitored river water quality sites were **not suitable for activities like swimming**

Between 2014 and 2018

68% of monitoring groundwater sites **failed to meet E. coli drinking water standards** on at least one occasion

In 2016, the drinking water supply in Havelock North became contaminated

43-57%

of the town's population were sick

\$21M

in total economic costs

Our natural infrastructure is an asset

Our natural infrastructure helps to:

- regulate our climate
- prevent erosion and landslides
- protect our coastal environment from storm surges
- improve water quality and regulate flooding

While:

- supporting cultural values, health and wellbeing
- improving biodiversity
- providing economic opportunities and resilience

But its under pressure

10%

of wetlands remained in 2010 compared to pre-human existence

As of 2018, indigenous forests covered

~7 million ha

(for 27% of total land area). The overall indigenous forest land area increased since 2008, but continue to be located in upland areas

More than

3,200

of our known indigenous species are **threatened or at risk of extinction** partly due to loss of habitat

Pollution and waste

Air quality is improving but below recent WHO health guidelines

Between 2017 and 2020:

18 out of **19** sites (mostly residential) were **above the 2021 WHO 24-hour average PM_{2.5} guideline**

In 2016, PM_{2.5} and NO₂ from human-made air pollution was associated with:

3,317 premature deaths **13,155** hospitalisations



Briefing: The Environmental Protection Authority's Quarter One 2023/24 Performance Report

Date submitted: 21 December 2023

Tracking number: BRF-4046

Security level: In-confidence

MfE priority: Not urgent

Actions sought from Ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny SIMMONDS Minister for the Environment	Note the Environmental Protection Authority's Quarter One 2023/24 Performance Report	N/A

Actions for Minister's office staff

Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments

1. The Environmental Protection Authority's Quarter One 2023/24 Performance Report
2. Overview of your role as responsible Minister

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Tiffany Vail		✓
Responsible Manager	Ngaire Best	027 399 3600	
Chief of Staff	Martin Workman	022 517 3268	

Minister's comments

The Environmental Protection Authority's Quarter One 2023/24 Performance Report

Key messages

1. This briefing provides commentary on the Environmental Protection Authority's (EPA's) performance in quarter one 2023/24 (1 July to 30 September 2023). The EPA's Quarter One 2023/24 Performance Report is attached as Appendix One.
2. An overview of your role as Minister responsible for the EPA is attached as Appendix Two.

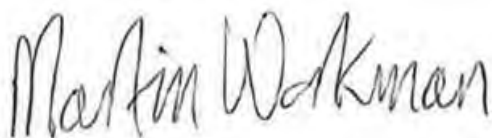
Recommendations

We recommend that you:

- a. **note** that MfE considers there are no issues related to the EPA's quarter one 2023/24 performance that require your immediate attention or action.
- b. **meet** with officials to discuss the development of a 2024/25 Letter of Expectations for the EPA.

Yes | No

Signatures



Martin Workman
Chief of Staff
Office of the Chief Executive
Date: 21 December 2023

Hon Penny SIMMONDS
Minister for the Environment

Date:

The Environmental Protection Authority's Quarter One 2023/24 Performance Report

Purpose

1. This briefing provides commentary on the Environmental Protection Authority's (EPA's) performance in quarter one 2023/24 (1 July to 30 September 2023). The EPA's Quarter One 2023/24 Performance Report, received on 13 December 2023, is attached as Appendix One.
2. In addition, an overview of your role as a Minister responsible for the EPA is attached as Appendix Two.

Background

3. The EPA produces a quarterly performance report which is provided to you and the Ministry for the Environment (MfE) around one month following the end of each quarter. The quarterly reports provide information to you as responsible Minister, and MfE as the monitor, on progress against statutory deliverables, financial and non-financial performance targets, key initiatives and risks and organisational health.

Analysis and advice

Service Performance

4. Performance highlights for the EPA in quarter one 2023/24 include the following.
 - a. On 3 July the EPA approved changes to the rules for how neonicotinoid insecticide, Actara, can be used if the brown marmorated stink bug (BMSB) invades New Zealand. The Ministry for Primary Industries applied to increase the use of Actara from four to a maximum eight applications per year in a single area in response to a serious BMSB incursion. The EPA has put in place additional controls for using the insecticide in response to BMSB to minimise any risks to the environment, particularly to pollinator insects.
 - b. On 10 August the EPA approved the import or manufacture of a feed additive nitrooxypropanol (3-NOP) to reduce methane emissions in livestock. As 3-NOP can pose risks to people in its concentrated form the EPA imposed safety rules around its use. This is New Zealand's first application for a methane inhibitor. The EPA noted that a reduction of ruminant methane emissions from the use of 3-NOP could significantly benefit New Zealand to meet its local and international obligations to reduce methane emissions.
 - c. On 31 August previous Minister for the Environment, Hon David Parker, issued a direction under the Resource Management Act (RMA) 1991 to declare the South Island Resource Recovery Limited's proposal for a waste to

energy plant in Glenavy, Waimate, a proposal of national significance. The proposal has been referred to the Environment Court and the EPA will be providing secretariat services to the Court.

- d. On 20 September a public hearing was held on the EPA's proposed updates to the Cosmetic Products Group Standard, which sets out rules for cosmetics to protect consumers. A key focus is to ensure the Standard is in line with international standards. It is also proposed that per- and polyfluoroalkyl substances (PFAS) are banned from cosmetic products due to their potential health and environmental impacts. The Decision-Making Committee is satisfied it has enough information to reach a decision, which will be publicly notified by 30 January 2024.
- e. The EPA's Sediment Taskforce (set up at the end of 2022 to bring a coordinated approach to addressing sediment pollution issues) completed an investigation following a request for assistance by New Plymouth District Council (NPDC) into clearance of a Significant Natural Area by local landowners in 2019. While breaches were found, they occurred before the EPA had powers under the RMA. Therefore, the EPA is working with NPDC to ensure corrective actions are taken. The Taskforce also completed an investigation initiated by a local landowner relating to forestry sediment in the Horizons Regional Council area. The EPA found some minor sediment control issues and is working with the Council to ensure corrective actions are taken.
- f. The EPA has previously outsourced the audit and assessment of industrial facilities under the Climate Change Response Act (CCRA) 2002. However, the EPA has recently developed an internal process for CCRA compliance assessment, and in quarter one the Compliance, Monitoring and Enforcement team undertook an on-site inspection of New Zealand Steel. The findings are currently being assessed for compliance with the Emissions Trading Scheme (ETS) requirements under the CCRA. This new process has the potential to reduce costs for the EPA.

Other areas of focus

5. On 4 September Colin Dawson (Chair) and Heather Simpson (member) were appointed to the EPA board for one-year terms. The EPA and MfE held separate induction sessions for the new appointees in mid-October. The EPA Board has five members with terms expiring in mid-2024 and one vacancy due to a recent resignation. Further advice on the proposed (re)appointment process will be provided to you in mid-February 2024.
6. The EPA held its annual Symposium on 11 and 12 October which brought together staff and experts from outside the EPA to share their science and mātauranga expertise. Twenty-eight EPA staff and six external speakers presented at four sessions over two days. Topics discussed ranged from challenges in the waste sector, climate change and adaptation, and how to change environmental behaviours. The Symposium is an opportunity for EPA staff to learn about actions that scientists and other groups are taking, and new thinking to progress science and mātauranga throughout New Zealand.

Performance measures

7. The EPA's performance measures for 2023/24 are mapped to categories from its 2022-2026 Statement of Intent. The table below provides a summary of performance against the measures in each category.

Category	MfE Comments
Engagement with Māori, communities and key sectors promotes environmental, chemical safety, and compliance awareness, inspires people and businesses to take actions to protect the environment, and empowers participation in our processes.	The three measures in this category are on track to be achieved.
The risks to New Zealanders and the environment associated with the use of chemicals are reduced.	The two measures in this category are on track to be achieved.
Management of the New Zealand ETS promotes participants fulfilling their obligations, and Aotearoa New Zealand transitioning to a low-emissions economy.	Three of four measures in this category are on track to be achieved. The timeliness component of one measure was not achieved. One forestry entitlement batch was completed in four days rather than the required timeframe of two days due to staff shortages.
The EPA makes decisions under relevant environmental Acts, in an effective way, by: • having documentation and consistent application of EPA processes • meeting timeframes and statutory obligations, including taking a precautionary approach.	Eight measures in this category are on track to be achieved. Two were not measurable this quarter. • No proposals of national significance were considered. • No Water Conservation Orders were considered.
Māori perspectives, including mātauranga Māori, are woven into EPA decisions, policies, and processes.	The three measures in this category are on track to be achieved.
The EPA's actions promote credible deterrence of non-compliance, delivering improved environmental and health outcomes for Aotearoa New Zealand and New Zealanders.	The four measures in this category are on track to be achieved.
The Exclusive Economic Zone major prosecutions fund is used in accordance with the agreed criteria.	The one measure in this category is on track to be achieved.

Financial performance

8. For the year-to-date 30 September 2023 the EPA delivered a deficit of \$0.896 million against a budgeted deficit of \$1.839 million.

9. The EPA has budgeted to deliver a deficit of \$3.982 million for the full year 2023/24. The EPA has been operating a deficit model since 2017/18 by using its cash reserves initially to fund a programme of improvement activity, and in more recent years to fund operational activity. This model is no longer sustainable due to depleting cash reserves and an expanding role. The EPA is not able to take on additional functions without an appropriate increase in funding or the reprioritisation of its existing work programme.
10. MfE has undertaken to provide short term funding to the EPA in three areas.
 - i One-off funding of \$1.0 million in 2023/24 to support the Sediment Taskforce's work.
 - ii \$1.9 million over four years to input into cross agency policy work regarding market governance for the ETS.
 - iii \$1.3 million over two years for the fast-track consenting (FTC) function under the Natural and Built Environment Act 2023 (NBEA). With the repeal of the NBEA the FTC function will be retained until a new regime is in place.
11. The EPA has signalled that it will require a baseline funding increase to maintain its current level of activity and effectively deliver on any proposed changes or additions to its functions and work programme.
12. The EPA is working to maintain sufficient cash reserves to manage any uncertainties around funding and work programme priorities that may arise in 2023/24.

Next steps

13. The EPA's Quarter Two 2023/24 Performance Report (1 October to 30 December 2023) is due to be provided to MfE in February 2024.
14. You may wish to set out your priorities and performance expectations for the 2024/25 financial year, and those of the wider Government, in a letter of expectations (LOE) to the EPA. Crown entity boards use LOEs to inform their work programme planning and the development of their accountability documents for the year ahead. MfE officials intend to provide you with advice and a draft LOE for your consideration. You may wish to meet with officials early in the new year to discuss your priorities and expectations to inform the development of our advice.
15. MfE officials can also provide further information relating to the content of this report and your role as responsible Minister at your request.

Appendices

Please see appendices as attached via email to the Minister's office.

Appendix refused under section 18(d) - soon to be publicly available at:
<https://www.epa.govt.nz/resources-and-publications/corporate-publications/?tag=264>



Briefing: Progressing the repeal and replacement of the Environmental Reporting Act 2015

Date submitted: 18 January 2024

Security level: IN CONFIDENCE

MfE priority: Urgent

Actions sought from Ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny Simmonds Minister for the Environment	Agree to the recommendations in this briefing	26 January 2024

Actions for Minister's office staff

Forward briefing to offices as per the below recommendations

Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments

- Appendix 1: Main elements of Environmental Reporting Bill
- Appendix 2: Proposed process for preparing and introducing the Environmental Reporting Bill

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Dave Karl		
Responsible Manager	Aaron Napier		
General Manager	Sarah Stevenson	027 475 2662	✓

Minister's comments

Progressing the repeal and replacement of the Environmental Reporting Act 2015

Key messages

1. In 2019, a review by the Parliamentary Commissioner for the Environment (PCE) highlighted shortcomings in the Environmental Reporting Act 2015 (ERA). The PCE's findings echoed our experience implementing and operating the ERA.
0. Soon afterwards officials began developing an Environmental Reporting Bill (the Bill) that would repeal and replace the ERA. Due to the previous Government's prioritisation of new legislation, the Bill was advanced into drafting but not prioritised to be introduced to the House.
1. The current legislative proposals are designed to address shortcomings that prevent reporting from being as useful as it could be and improve central government effectiveness.
2. Cost benefit analysis of the proposals estimated that they could have mean net benefits of \$503.8m over the first thirty years of implementation, including by reducing regulatory burden, slowing ecosystem degradation and less harm from pollution.
3. We consider the proposed Bill aligns with the Government's priorities (see Appendix 1); particularly the intent to enhance evidence-based policy and decision-making.
4. While timeframes are tight (see Appendix 2), the Bill could be introduced to the House as soon as March following a limited number of policy decisions to improve existing proposals.
5. The Leader of the House has suggested the advanced stage of the Bill makes it a candidate for introduction early this year, should you wish to progress it.
6. This briefing seeks your agreement to progress work on the Bill. Should you agree, a subsequent briefing will be provided with further detail on the policy settings in the proposed Bill and seeking direction as to your preference on several policy issues.

Recommendations

We recommend that you:

- a. **note** changes to the Environmental Reporting Act 2015 (ERA) would improve the effectiveness and efficiency of reporting, and provide better value for money
- b. **agree** to officials continuing work on the Bill to repeal and replace the ERA in general accordance with the timetable set out in Appendix 2

Yes | No

- c. **agree** that officials prepare a Cabinet paper seeking final policy decisions, recommending the Bill to repeal and replace the ERA is added to the legislative programme and seeking approval for its introduction

Yes | No

- d. **agree** to forward this briefing to the Leader of the House and the Minister for Statistics for their information

Yes | No

- e. **discuss** the inclusion of the Environmental Reporting Bill on the 2024 legislative agenda with Hon Bishop

- f. **meet** with officials for further discussion.

Yes | No

Signatures



Sarah Stevenson

General Manager, Strategy

Strategy, Stewardship & Performance

18 January 2024

Hon Penny SIMMONDS

Minister for the Environment

Date:

Progressing repeal and replacement of the Environmental Reporting Act 2015

Purpose

7. This briefing provides a high-level overview of the Environmental Reporting Bill (the Bill), including associated benefits, and seeks your agreement for work to progress. Officials will provide additional detail on the proposed Bill in future briefings.

Background

8. The ERA was enacted in 2015 by the last National Government, when New Zealand was the last Organisation for Economic Co-operation and Development (OECD) country to regulate environmental reporting. Almost three reporting cycles have been completed since.
9. The PCE's review of Environmental Reporting (ER) in New Zealand,¹ and the Ministry and Stats NZ's experience operating the legislation highlighted several legislative deficiencies.
10. The proposed amendments (see Appendix 1) included in the Bill aim to achieve the following objectives:
 - i to have a clear purpose for environmental reporting that drives a focus on key issues and the desired outcomes
 - ii to increase the influence environmental reporting has on decisions affecting the environment.
11. The previous Government began work on these changes and agreed to a range of proposals set out in [CAB-22-MIN-0293] and [CAB-22-MIN-0539]. Due to the previous Government's prioritisation of new legislation, the Bill was advanced into drafting but not introduced to the House.
12. The Leader of the House has indicated there may be space on the legislative calendar for early 2024 and the Bill could be considered given how far advanced it is.

¹ [Parliamentary Commissioner for the Environment: 'Focusing Aotearoa New Zealand's environmental reporting system' \(2019\)](#)

Analysis and advice

The proposals intend to improve government effectiveness and efficiency

13. The proposed Bill will help to focus environmental reporting efforts on measuring what matters most, providing the data and evidence decision-makers need to take timely action on the environmental matters. This will improve the impact of reporting and the effectiveness of government actions, while increasing the accountability of government agencies for achieving long-term environmental outcomes.
14. Cost-benefit analysis undertaken by Allen + Clarke indicated mean net benefits for the Bill of \$503.8m over thirty years, officials can provide a copy of this report if required. These benefits include reduced regulatory burden, as a better understanding of the state of the environment, especially sources of environmental pressures, enables interventions to be more targeted. Officials can provide a copy of the cost-benefit analysis report.

The proposals align with the Government's objectives

15. Coalition agreements and *Blueprint for a Better Future* highlight the importance of making high-quality information and data available to a wide range of stakeholders to enable well-informed decisions and drive action (including preparation and responsiveness for climate resilience and adaptation).
16. There is strong alignment between the proposals and the Government's priorities (see Appendix 1), as well as with the approach to social investment. Minister Willis has stated the Government needs to focus on intervening as effectively as possible, 'building fences at the top of cliffs rather than funding ever more ambulances to pick up the pieces at the bottom'. Doing so requires high-quality, trusted environmental data and reporting.

Repealing and replacing the legislation is feasible this year

17. While timeframes are tight, the Bill could be introduced to the House as soon as March, once you have taken policy decisions to improve existing proposals and taken a final draft Bill through the Cabinet (see process overview, Appendix 2).

Progress to date

18. The Ministry's Regulatory Impact Analysis panel has reviewed the draft Regulatory Impact Statement (RIS) document and considers the document meets quality assurance criteria for regulatory impact analysis, clearly sets out available options and provides a clear summary of the proposed changes and the reasons for them.

19. The Ministry undertook engagement with targeted stakeholders and the public on the proposed amendments in early 2022, with a summary of submissions published on The Ministry's website. The Ministry has undertaken initial departmental consultation on the proposals in the Bill.
20. The Ministry has been working with the Parliamentary Counsel Office (PCO) and has a relatively advanced draft of the Bill that can be refined subject to your direction and Cabinet agreement.
21. Further improvements to the Bill can be addressed through the select committee process, providing another opportunity for public submissions.

Te Tiriti analysis

22. The proposals aim to better meet our Te Tiriti partnership responsibilities including how te ao Māori and mātauranga information is used, collected, managed, and protected in environmental reporting.
23. Targeted consultation with a wide range of Māori leaders and mātauranga experts was undertaken in February to March 2022. There was general support from most submitters.
24. The select committee process would also provide iwi and hapū with an opportunity to inform Select Committee of their expectations and aspirations.

Other considerations

Risks and mitigations

Communications

25. If you decide to proceed, the Ministry can assist you with communications with stakeholders and the wider public when the amendment Bill is introduced and throughout the legislative process.

Proactive release

26. The briefing notes related to repealing and replacing the ERA will be proactively released on the Ministry's website, subject to redactions in keeping with the principles of the Official Information Act 1982.

Financial, regulatory and legislative implications

Financial implications

27. The Bill does not generate immediate financial implications, implementation of aspects of the Bill can be phased to reflect available funding. Approximately half of the costs of the proposals will depend on how much existing and new

data is collected for reporting. Environmental reporting can continue to function without the additional data, but the benefits will be lower.

28. Long term budget and resourcing to improve environmental reporting would be subject to future policy decisions and budget processes. Filling data gaps for core environmental indicators will require dedicated long term and ongoing investment.

Legislative implications

29. Advancing the Bill requires a place on the legislative calendar, which this briefing recommends you discuss with Hon Chris Bishop as Leader of the House.

Next steps

30. If you wish to progress the proposals, we recommend you discuss inclusion of the Bill onto the 2024 legislative programme with Hon Chris Bishop as Leader of the House.
31. We are currently working on two further briefings for you. The first briefing will provide you with recommended policy changes that will align the draft Bill with your priorities. We expect to provide this in the next week. The second briefing will provide you with a more thorough overview of national environmental monitoring arrangements, the ER programme and the Ministerial roles and responsibilities within it.
32. The remaining decisions needed to adapt the Bill to your priorities can be achieved in one Cabinet paper. Decisions can be sought from either Cabinet or the Cabinet Business Committee. They are decisions:
 - agreeing the policies you would like included in the Bill
 - adding the Bill to the legislation programme
 - approving the Bill for introduction.
33. We have set out a process to enable introduction in March in Appendix 2. The timelines set out are contingent on the outcome of Ministerial consultation, as well as on your direction on the subsequent policy briefing.

Appendices

Appendix 1: Main elements of Environmental Reporting Bill

Appendix 2: Proposed process for preparing and introducing the Environmental Reporting Bill



Briefing: Environment portfolio priorities and possible targets

Date submitted: 19 January 2024

Tracking number: BRF- 4107

Security level: Policy and Privacy

MfE priority: Urgent

Actions sought from Ministers		
<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny SIMMONDS Minister for the Environment	Discuss draft priorities letter with officials and seek feedback from your colleagues on possible targets. Sign attached letter [with amendments as necessary].	23 January 2024

Actions for Minister's office staff
If agreed, Forward to the Minister of Climate Change and the Minister Responsible for RMA Reform. Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
1. Letter from the Prime Minister to you. 2. Draft priorities letter from you responding to the Prime Minister's request.

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Responsible Manager	Nik Andic		
General Manager	Hayden Johnston	0221530221	✓

Minister's comments

Environment portfolio priorities and possible targets

Key messages

1. This briefing note provides a draft response to the Prime Minister's request for:
 - i a letter outlining your priorities as Minister for the Environment for this Parliamentary term, and
 - ii a shortlist of possible targets for the Environment portfolio, one of which could be included in a wider set of closely monitored Government targets that will help to drive delivery across core public services.
2. The Department of Prime Minister and Cabinet has advised your response on possible targets should take a broad view that could also include climate change and resource management outcomes if appropriate. We have reflected this in our advice and recommend you forward this briefing to the Minister of Climate Change and the Minister Responsible for RMA Reform.
3. The response to the Prime Minister is due on 29 January. You have the opportunity to discuss the draft letter and targets with officials prior to finalising these at our weekly meeting on 24 January.
4. 9(2)(f)(iv)


Recommendations

We recommend that you:

- a. **meet** with officials to discuss the draft Environment portfolio letter and possible targets on 23 January.

Yes | No

- b. **agree** to forward this advice to the Minister of Climate Change Hon Simon Watts and the Minister Responsible for RMA Reform Hon Chris Bishop as possible targets fall within their portfolio responsibilities.

Yes | No

- c. **note** that the letter and targets have been requested by the Prime Minister by 29 January 2024.

- d. **note** that we will provide you with separate advice on cost savings to inform your response to Minister of Finance due by Friday 16 February.

Signatures



Date

Hayden Johnston

**General Manager – Natural Environment
Policy**

Hon Penny SIMMONDS

Minister for the Environment

Date

Environment portfolio priorities and possible targets

Purpose

5. This paper provides you with a draft letter responding to the Prime Minister's request for:
 - Environment portfolio priorities for this Parliamentary term, and
 - possible environment focussed targets that could be used by the Government for driving delivery of its work programme.

Background

6. The Prime Minister has written to you signalling his intent to establish a series of ministerial portfolio priorities to maintain early momentum across the remainder of this term (Appendix 1).
7. Ministers are asked to outline their proposed portfolio priorities, the impact expected, and how and when they will be achieved. The response is due to the Prime Minister on 29 January.
8. In addition to portfolio priorities, the Prime Minister intends to set and closely monitor 8 - 12 targets to drive delivery across core public services. You have been asked to provide a shortlist of targets for the Environment portfolio, and to identify if you have a preferred target. This is also due by 29 January.
9. We understand the Government targets will be drawn from some, or all of, the Infrastructure, Housing, Justice, Health, Welfare and work, Economy, Education, Environment and Digital Government portfolios.

Analysis and advice

Environment portfolio priorities

10. We have prepared a draft priorities letter for your consideration (Appendix 2). The priorities are derived from your feedback on recent briefings and Cabinet decisions [CAB-23-MIN-0486 refers], National's *Blueprint for a Better Environment*, *Getting Back to Farming* and relevant coalition agreements.
11. We are preparing similar letters for the Minister of Climate Change and the Minister Responsible for RMA Reform.

Possible environmentally focussed targets

12. The Ministers Responsible for RMA Reform and Climate Change were not specifically asked by the Prime Minister to identify possible targets within their portfolios. However, the Department of Prime Minister and Cabinet (DPMC) has advised your response should take a broad view that could also include climate change and resource management targets if appropriate.

Why environmental performance targets are important

13. Land, water and other resources are part of New Zealand's unique natural capital that is essential for supporting our economic prosperity and wellbeing. The environment should be integrated into decision-making to ensure we draw down this capital sustainably¹.
14. As a measure of economic activity, Gross Domestic Product (GDP) is needed for short-run macroeconomic analysis and management. However, GDP does not account for the depreciation of assets, including the natural environment.
15. Environmental performance targets could help address this imbalance and pursue a more future-proofed and inclusive measure of wealth that accounts for the benefits from investing in natural assets.

Why environmental performance targets are challenging to set

16. The Parliamentary Commissioner for the Environment (PCE) has identified the key challenges in establishing targets to drive environmental performance:²
- biophysical characteristics of the environment often make it difficult to evaluate return on investment, including the lack of a simple link between cause and effect.
 - there is potential for serious lags between policy interventions and changes in the state of the environment.
 - in complex policy areas, it is also difficult to attribute the efforts of a particular government agency (or even the efforts of the government as a whole) to a particular outcome.
 - and the outcomes an agency is seeking to advance are subject to multiple interventions by multiple agencies as well as multiple external factors.

¹ The recent UK *Dasgupta Review* strongly concluded that 'nature needs to enter economic and finance decision-making in the same way buildings, machines, roads and skills do'. [The Economics of Biodiversity The Dasgupta Review: Headline Messages \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784442/The_Economics_of_Biodiversity_The_Dasgupta_Review_Headline_Messages.pdf)

² [environmental-reporting-research-and-investment-do-we-know-if-were-making-a-difference.pdf \(pce.parliament.nz\)](https://pce.parliament.nz/publications/2019/05/environmental-reporting-research-and-investment-do-we-know-if-were-making-a-difference.pdf)

17. For example, if all sediment, *E. coli* and nutrients reaching a lake stopped today, the lake would not suddenly cease to be polluted or reverse its decline. There would still be historical levels of pollution in the lake with more still working its way downstream. Nor would it be clear which action or agent was directly responsible for the change.
18. We agree with the PCE that all decision-making needs to be better informed by evidence. Those decisions – and their consequences – need to be capable of scrutiny. We have provided you with initial advice on the potential to improve New Zealand’s environment evidence base [BRF-4045 refers] and make changes to the Environmental Reporting Act 2015 [BRF-4074 refers].

The Treasury’s 2022 Wellbeing Report

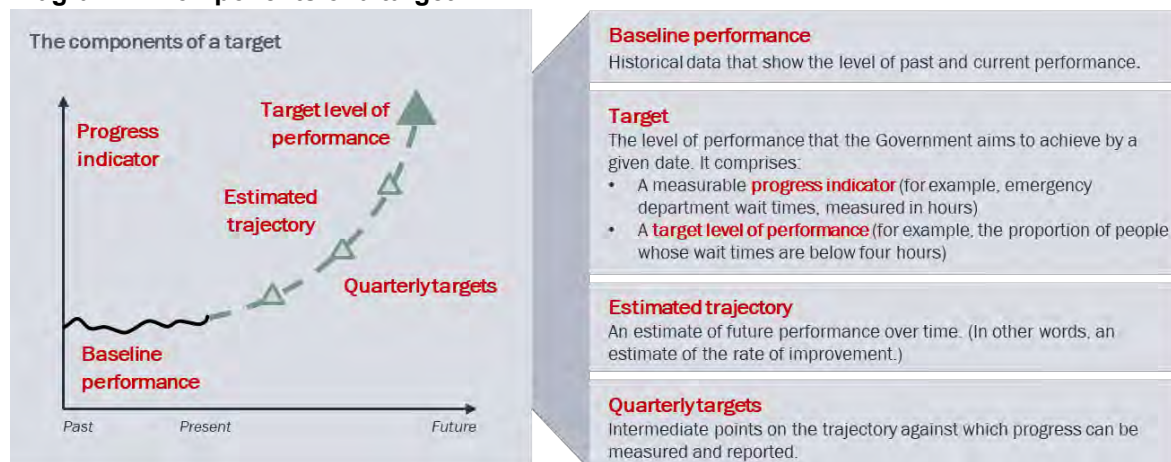
19. The Treasury’s 2022 Wellbeing Report³ looked at environmental outcome indicators. This was required by Public Finance Act amendments in 2020, which identified the need for indicators that describe the state of wellbeing and change over time⁴.
20. This report identified a mix of indicators to characterise ‘environmental amenity’ including:
 - access to nearest park/greenspace (from a survey).
 - drinking water that met treatment management standards (monitored).
 - incidence of agricultural drought (observation).
 - restricted annual activity days due to illness resulting from exposure to human-made pollution (monitored).
 - people’s rating of the overall state of the environment in NZ (surveyed).
21. While we considered repurposing these indicators as possible targets, they are all affected by the issues identified by the PCE above.

Recommended short list of potential targets

22. DPMC guidance recommends that potential targets have a suitable baseline for which progress can be compared, and that are capable of being measured and reported on regularly – see diagram below. To be implemented quickly and cost-effectively they should ideally also make use of information that already exists.

³ [Te Tai Waiora: Wellbeing in Aotearoa New Zealand 2022 \(treasury.govt.nz\)](https://treasury.govt.nz)

⁴ s8 Public Finance (Wellbeing) Amendment Act 2020 (2020 No 29), inserted s26NB to Public Finance Act 1989

Diagram 1: Components of a target

23. Our recommended shortlist of possible targets for your consideration that meet these criteria is outlined below. We recommend you consult the Minister of Climate Change and Minister Responsible for RMA Reform on your preferred targets to ensure a coherent approach before responding to the Prime Minister.

Reduce waste going to landfill

24. This target would seek to reduce the amount of municipal waste that needs final disposal by 30 per cent by 2030. This target is currently set out in the Waste Strategy, published in March 2023 and is broadly aligned to waste emissions reduction budgets and policies targeting biogenic methane in the first Emissions Reduction Plan. Work on the cost of meeting this target has already been done.
25. While there is goodwill and widespread support for reducing waste, actual reductions have been hard to achieve due to historical low level of waste levy and investment in the alternatives, and an estimated 9(2)(f)(iv) resource recovery infrastructure deficit in New Zealand.
26. The recent and planned increases to the waste levy have changed the balance, in the first 12 months since reopening, the waste minimisation fund has awarded 38 projects 9(2)(f)(iv) the first 11 of these projects are expected to divert ~117,375 tonnes of organic waste per annum into new resource recovery infrastructure, while also reducing emissions (largely biogenic methane) at a cost ~\$39/tonne of CO₂e. While this target is very ambitious, continued targeted investment in New Zealand's resource recovery infrastructure and services will change the upwards trend of disposal to landfill, as has happened in comparable jurisdictions, such as Australia.
27. The Minister of Finance identified the Waste Disposal Levy as a targeted savings opportunity that we are progressing as part of our advice to you on the Budget 2024 Fiscal Sustainability Programme. Realising the requested savings will require legislative changes to how the levy is hypothecated under the Waste Minimisation Act. Changes to the Waste Disposal Levy may impact the feasibility of achieving this target.

Target	30% per capita reduction in waste going to landfill by 2030
Progress indicator	Quarterly reporting shows a year-on-year reduction and a trajectory consistent with a 30% per capita reduction by 2030
Current level of performance	New Zealand has one of the highest per capita municipal waste to landfill disposal rates in the OECD, currently at 758.3kgs (2022/2023). The average OECD rate was reported as 533.7 kgs per capita in 2020. Overall, New Zealand's rate has been trending upwards since waste levy reporting began (2009/2010). In contrast, Australia's per capita municipal waste to landfill rate has been steadily falling over time, to 495.6 kg in 2019. This is largely due to higher levy rates and sustained investment in resource recovery infrastructure at Federal, State and Local levels of Government.
Measure/source	Quarterly Online Waste Levy System data. Quarterly data can be less accurate than the annual data, which can require some reconciliation between quarters. The quarterly figures need to be interpreted with knowledge of context, such as seasonality.

Reduce greenhouse gas emissions

28. The Climate Change Response Act sets a target of net zero greenhouse gas emissions (excluding biogenic methane) by 2050. Emissions budgets are steps on the way to achieving that goal. This measure is not whether we have achieved those budgets, but whether we are on track to do so.
29. Measuring progress on climate mitigation is important. However, climate mitigation may not be fully suitable as a comprehensive *environmental* target. While reducing emissions is expected to lead to positive tangible environmental outcomes on a global and long-term scale, these impacts are indirect and the immediate environmental impacts in New Zealand will vary. For example, renewable electricity generation has some potential negative environmental impacts, e.g. on biodiversity and water quality, depending on the specifics of projects.
30. We already report on progress towards meeting emissions budgets. The Climate Change Chief Executives Board carries out regular monitoring and reporting on New Zealand's long-term emissions, projections, budgets and targets using a number of different measures that together give a multi-dimensional picture of New Zealand's emissions position in order to inform policy advice and decisions.

31. The indicator we suggest is one of the various indicators the Climate Change Chief Executives Board uses in its reporting and is the most suitable as a single progress measure.

Target	New Zealand is on track to meet the emissions budgets that get us to net zero greenhouse gas emissions (excluding biogenic methane) by 2050
Progress indicator	Provisional net GHG emissions estimates (last 12 months to current quarter). These estimates can show (1) the current level of emissions (2) the change from the previous quarter, and (3) a comparison with a hypothetical trajectory that would allow us to come within those budgets.
Current level of performance	<u>First emissions budget (EB1): 290 Mt CO₂e from 2022-25</u> New Zealand's net emissions were 69.8 Mt of CO₂e in 2022. This accounts for around 24% of EB1 (290Mt) with around 76% of the budget available for the remaining three years. <u>Second emissions budget (EB2): 305 Mt CO₂e from 2026-30</u> Projections based on policy settings, economic and sector data as at 1 July 2023 suggest that New Zealand can land within EB2. <u>Third emissions budget (EB3): 240 Mt CO₂e from 2031-35</u> Projections based on policy settings, economic and sector data as at 1 July 2023 suggest EB3 contains considerably more uncertainty and likely requires additional attention. The projections show a range of outcomes are possible.
Measure/source	Provisional net GHG emissions estimates are calculated using provisional gross emissions estimates (customised data request) from Stats NZ's minus NDC forestry sequestration projections published by MfE based on data from MPI.

Driving effective investment in nature

32. This target would seek to increase and drive improvements in the effectiveness of investment in nature across government and private sector. Investing in nature would help combat climate change, increase resilience, reduce biodiversity loss while fostering economic growth.

33. There is wide support for public and private investment in nature and nature-based solutions^{5,6}. There is also a significant base of existing investment (across central and local government and industry). Focus is now needed on how to target investment for maximum benefit, as well as track progress and performance.
34. From a private investment perspective, consistent approaches are being increasingly adopted by industry that provide greater levels of transparency into relevant areas of environmental opportunity, risk, and investment.
35. The government has several policy, stewardship, and investment levers at its disposal, and work is being undertaken with Treasury, DOC and MfE to refine an approach to measurement along the lines of this target. The target requires more work but would drive greater effectiveness of investment in achieving environmental outcomes.
36. Improving quality of environmental information will also help reduce regulatory burden, as a better understanding of the state of the environment, especially sources of environmental pressures, enables interventions to be more targeted.

Target	Improving the Effectiveness of Investment in Nature
Progress indicator	Quantum of Investment in Nature measured against improvements in select Core Indicators
Current level of performance	Work is required to develop this indicator further as not currently assessed/reported on in an integrated way
Measure/source	<u>Possible Input Measures:</u> Central/Local Government Annual Reports Government and Industry Financial Disclosure reports Performance and Reporting Frameworks (e.g. Emissions Reduction Plan, NZ Biodiversity Strategy) <u>Possible Outcome Measures (change in condition):</u> Wetland Extent Indigenous Forest Extent Urban Green Space Extent

⁵ [Business Case - Pure Advantage](#)

⁶ [Nature Positive Plan: better for the environment, better for business \(dcceew.gov.au\)](#)

Further targets that could also be considered

37. While we considered possible targets across multiple environmental domains (e.g. land use, soil, air, biodiversity, freshwater, marine) there were not many that met the DPMC and PCE criteria.

Te Tiriti analysis

38. No Tiriti issues are associated with the proposals in this briefing.

Other considerations

Consultation and engagement

39. The Ministry has clarified the instructions and discussed possible approaches to the targets with DPMC.

Risks and mitigations

40. The Prime Minister notes that Ministers and officials should have a view on any changes required to deliver the proposed targets, as there will be no new funding considered (beyond what has been invited into the Budget 2024 process). We have developed the targets with this in mind.

Legal issues

41. No legal issues are associated with the proposals in this briefing.

Financial, regulatory and legislative implications

42. No financial, regulatory, or legislative implications are associated with the proposals in this briefing.

Next steps

43. We recommend you discuss the priorities letter and proposed targets with officials at your weekly meeting on 23 January. Following this, officials will finalise the letter and targets to meet the 29 January deadline.
44. We also recommend you consult the Minister of Climate Change and Minister Responsible for RMA Reform on your preferred target or targets to ensure a coherent approach before responding to the Prime Minister.

Appendices

Please see appendices as attached via email to the Minister's office.



RT HON CHRISTOPHER LUXON
PRIME MINISTER

18 December 2023

Hon Penny Simmonds CNZM
Minister for Disability Issues
Minister for the Environment
Minister for Tertiary Education and Skills
Parliament Buildings
Wellington

CC: Paula Tesoriero MNZM, Chief Executive, Ministry of Disabled People
James Palmer, Secretary for the Environment and Chief Executive
Iona Holsted, Secretary for Education and Chief Executive
Tim Fowler, Chief Executive, Tertiary Education Commission

Dear Penny

SETTING OUR PRIORITIES FOR THE NEXT THREE YEARS

Our 100-Day Plan is achieving momentum across Government, as Ministers and their agencies work quickly to deliver on a number of time-critical policy priorities.

We only have 12 quarters across the term of this Government to deliver results consistent with our ambitious work programme. To maintain our early momentum across the remainder of the term, I intend to establish a series of portfolio priorities with Ministers.

Regular performance monitoring will be critical to ensuring we can deliver the programme of change that has been promised by our government to New Zealanders.

To begin that process, please write to me by 29 January 2024 outlining your proposed priorities for each of your portfolios, the impact you expect each to have, and how and when you will achieve them. Please only include the key priorities (up to five) that will be the focus for you and your agencies.

The Minister of Finance is also writing to you to outline the strategy for Budget 2024 and for our ongoing fiscal sustainability programme. Your priorities will need to be consistent with this programme and with our Coalition agreements.

You should engage with your colleagues on your proposed priorities, to ensure a coherent approach and to agree on how you will work together on overlapping issues.

In addition to portfolio priorities, I intend to establish targets in a number of specific areas (8-12) to maintain the focus of Ministers and agencies on the most significant challenges facing New Zealand.

For your Environment portfolio, please propose a shortlist of targets, identifying your preferred one or two. You and your officials should have a view on any changes required to deliver those proposed targets and how any new or rescope initiatives will be supported (i.e. through reprioritisation of existing funding and/or managing with reduced funding). As you will be aware, there will be no new funding considered in addition to what has been invited into the Budget 2024 process.

I have asked the Department of the Prime Minister and Cabinet to support the target development process and provide support to agencies where necessary.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'C. Luxon', with a horizontal line underneath.

Rt Hon Christopher Luxon
Prime Minister

Appendix 2: BRF- 4107 Draft priorities letter

CORM-1934

Rt Hon Christopher Luxon
Prime Minister
Parliament Buildings
Wellington 6160

Dear Prime Minister

Setting Environment portfolio priorities for the next three years

This Government's goal for growing the economy is dependent on a resource management system that makes it easier to get things done; protects the environment; is based on better data and evidence for decision-making; and is resilient to the effects of climate change. To achieve this, a cohesive, integrated approach to environmental regulation is needed, and I intend to work closely with my colleagues to deliver on this.

The Resource Management Act 1991 (RMA) is the primary legislation through which the environment is managed. The Minister Responsible for RMA Reform is leading work to replace the RMA, and I will work closely with him to support this given its relevancy to all environmental management matters.

Environmental reporting, established under the previous National Government, shows that our freshwater environment is under pressure due to a range of factors, and that our indigenous biodiversity is at risk. Environmental regulations have failed to recognise and reward beneficial actions; have imposed large compliance costs on farmers and other landowners; and have not achieved the environmental outcomes they were created for. In response, I will:

- support the review and replacement of the National Policy Statement for Freshwater Management (NPS-FM), led by Minister Bishop, to improve water quality and take a pragmatic approach to freshwater policy that balances the needs of all water users.
- work closely with the Associate Minister for the Environment to cease implementation of the National Policy Statement for Indigenous Biodiversity (NPSIB) and to conduct a review of that policy to ensure pragmatic protection of New Zealand's biodiversity for future generations.
- amend other national direction (or create new national direction eg, water storage) to remove red-tape and provide farmers and landowners the tools they need to grow the economy, while still achieving environmental outcomes

- progressively build a more reliable and relevant evidence-base and data systems to assist decision-makers to make informed decisions, target interventions, and increase system efficiency.

Last year the Parliamentary Commissioner for the Environment reported on the environmental fate of chemicals. The Government recognises the substantial insights provided by the Parliamentary Commissioner for the Environment (PCE) and supports a holistic approach to chemical regulation to make our legislation current, strong, and effective in line with the PCE's recommendations.

New Zealand's waste management practices are an important part of maintaining and preserving our unique environment. I will review the current legislation and consider options to ensure it is fit-for-purpose, including how to address risks posed from historic landfills.

Our *Blueprint for a Better Environment*, *Getting Back to Farming* and relevant coalition agreements outline that this Government is committed to a carefully balanced approach, integrating both environmental and economic goals. A core enabler of this will be ensuring that local and central government have access to high-quality environmental data on which to base decisions. I will progress changes to the Environmental Reporting Act 2015 to ensure that reporting cycles and content are fit-for-purpose and based off consistent data standards.

The attached table provides further detail on these priorities, and I look forward to discussing these with you.

Yours sincerely

Hon Penny Simmonds
Minister for the Environment

CC Hon Chris Bishop, Minister for Resource Management Reform
CC Hon Andrew Hoggard, Associate Minister for the Environment

Table 1: Environment portfolio priorities for discussion

What we are going to do this term	How we will know we've succeeded
Priority 1: A pragmatic and balanced approach to freshwater	
Review and replace the NPS-FM: Cabinet has agreed to review and replace the NPS-FM this term [CAB-MIN- 0486 refers]. I will support Minister Bishop as lead on this and am committed to ensuring there will be a pragmatic and balanced approach to freshwater that addresses the needs of all water users.	The NPS-FM is reviewed and replaced this term. This includes rebalancing Te Mana o te Wai to better reflect the needs of all water user and other aspects as necessary eg, wetlands.
Amendments to associated regulations: The National Environmental Standards for Freshwater Management 2020 (NES-F) are closely linked to the NPS-FM. The two instruments should be reviewed together in order to achieve the dual outcomes sought of reducing red tape while improving freshwater quality.	NES-F is amended and well-aligned with the new NPS-FM.
Priority 2: Reviewing and amending the regulatory settings for biodiversity	
Begin to cease implementation of new Significant Natural Areas (SNAs) Progress changes to the NPS-IB that have the effect of ceasing implementation of new SNAs.	The implementation of new SNAs under the NPS-IB 2020 is ceased to provide room for review.
Review the NPS-IB: Undertake a full and robust review of the NPS-IB, ensuring that biodiversity is protected while removing red tape.	The NPS-IB is reviewed to ensure it provides a streamlined, adaptive framework that protects and enhances biodiversity by providing incentives and opportunities rather than red tape.
Priority 3: Progressing other national direction (new or amendments to existing)	
• Water Storage (new) • Freshwater Farm Plans (amendment) • Stock Exclusion (amendment) • NES sources of Human Drinking Water (amendment)	Regulations are amended this term so that: they are fit for purpose; unnecessary red tape is removed; and the environmental outcomes sought can be achieved.
Priority 4: Ensuring fit for purpose waste legislation and a better understanding of vulnerable landfills	
Waste minimisation: This Government recognises the importance of continuing to focus on minimising waste and reducing its impacts on the environment. This requires fit for purpose legislation that aligns with international best practice and ensures the waste levy is used for maximum impact.	Review waste legislation, including levy allocation, to ensure we have fit for purpose legislation and that funds are directed towards projects that promote waste minimisation and resource recovery.

Historic Landfills: I will undertake an assessment of the number and scale of historic landfills that are vulnerable to adverse climatic events, and review the funding options available for remediation.	By the end of this term a priority assessment tool will be available to identify the number of at-risk landfills, and a review of funding options will be complete. This will enable targeted remediation to minimise the potential damage.
Priority 5: More timely and comprehensive Environmental Reporting	
Amend the Environmental Reporting Act 2015 (ERA): This Government’s aim is to ensure there is high quality scientific information informing environmental decision making. I intend to progress changes to the ERA that will address identified shortfalls of the current legislation, including a lack of flexibility in the reporting cycles which creates inefficiencies. The changes will also address a range of other issues, including the recommendations of the Parliamentary Commissioner for the Environment (PCE) in his 2019 report, ‘Focusing Aotearoa New Zealand’s environmental reporting system’. I seek to proceed with those amendments in the first quarter of 2024.	The reporting system provides timely and comprehensive information about the state of New Zealand’s environment and emerging challenges, empowering communities and the government to make smart decisions.
Priority 6: Better management of Hazardous Substances	
Implement the Parliamentary Commissioner for the Environment’s recommendations: This government recognises the importance of a system that manages chemicals in a responsible way to minimise their impact their impact on human health and the environment. I intend to implement the recommendations provided by the Parliamentary Commissioner for the Environment outlined in his report on the environmental fate of chemicals.	Information about the quantities of chemicals entering the environment is improved and a common framework to prioritise action on contaminants that pose the highest risk is developed.

Aide memoire: Information to support your meeting with Otago Regional Council on freshwater planning

Date submitted: 25 January 2024

Tracking number: BRF-4061

Security level: Policy and Privacy, In confidence

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Penny Simmonds Minister for the Environment	For noting only

Appendices and attachments
1. Talking points for your meeting with Otago Regional Council 2. Copy of letter to councils from Hon Bishop 3. Copy of letter to councils from Environmental Defence Society 4. Summary of Ministerial options to influence regional decision making

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Régis Lapage		
Responsible Manager	Nik Andic	021 026 21969	
General Manager	Hayden Johnston	022 153 0221	✓

Information to support your meeting with Otago Regional Council on freshwater planning

Context for meeting

1. Gretchen Robertson, Chairperson of Otago Regional Council (ORC), invited you to meet to discuss Otago's freshwater planning and the next steps for resource management reforms.
2. ORC has recently begun the pre-notification consultation on its draft Land and Water Regional Plan (LWRP) until 23 February 2024. Before notification and wider public input, the Resource Management Act 1991 (the RMA) requires councils to consult with Ministers, local authorities and tangata whenua who are affected, and any customary marine title group in the area.
3. The Government has:
 - extended the statutory deadline for notifying freshwater planning instruments to implement the National Policy Statement for Freshwater Management 2020 (the NPS-FM) by three years to 31 December 2027
 - announced that work to replace the NPS-FM has begun and is expected to take 18-24 months.

Purpose

4. The purpose of this aide memoire is to support your meeting with ORC. Suggested talking points for your meeting are provided in Appendix 1.
5. This paper provides information on previous government intervention in Otago's freshwater planning and on the context for ORC's current planning process, which may help you to determine what action (if any) is needed to give effect to the Government's intentions with respect to Otago.

Background information

Minister Bishop's letter

6. On 13 December 2023, Minister Bishop sent a letter to the Mayors and Chairs of all regional councils (copy provided in Appendix 2). This letter announced the Government's intention to:
 - repeal the Natural and Built Environment Act 2023 and the Spatial Planning Act 2023

- replace the NPS-FM, and
 - extend the statutory deadline for notifying freshwater planning instruments to implement the NPS-FM by three years to 31 December 2027.
7. On 18 December 2023, Gretchen Robertson, Chairperson of ORC, invited Minister Bishop and Minister Simmonds to meet to:
- gain more insight into the next steps for resource management reforms and any proposed policy directions that might impact on ORC's roles and responsibilities, and
 - discuss the context in which ORC is developing its draft LWRP and new Regional Policy Statement.
8. On 10 January 2024, ORC began the pre-notification consultation on its draft LWRP for Otago.
9. On 17 January 2024, you responded to ORC's invitation.

Environmental Defence Society's letter

10. On 16 January 2024, the Environmental Defence Society wrote to regional and unitary council chairs, mayors and chief executives councils regarding their legal obligations to implement the NPS-FM "as soon as reasonably practicable".¹ We anticipate that this letter could also come up during your conversation with ORC so have provided a copy of it as Appendix 3.

Previous government intervention in ORC's freshwater planning

11. The RMA provided that pre-existing mining privileges which allowed for the taking and use of water became deemed permits with a 30-year duration expiring in 2021. These deemed permits made up a substantial proportion of all water that can be taken in Otago.
12. In 2018, the Minister for the Environment (the Minister) expressed concern that ORC did not have an adequate planning framework in place. The Minister was particularly concerned that the expiring deemed permits would be rolled over without addressing overallocation of fresh water.
13. In 2019, the Minister used powers under section 24A of the RMA to appoint Professor Skelton to investigate ORC's freshwater management and allocation functions. Professor Skelton found ORC's planning was not fit-for-purpose, and made recommendations to address the risk of the expiring deemed permits.

¹ EDS has referenced section 65(7) of the RMA and clause 4.1 of the NPS-FM, which provide that every local authority must give effect to a regional policy statement / the NPS-FM "as soon as reasonably practicable".

14. The Minister then made recommendations under section 24A of the RMA, including:

- **to notify an interim plan change.** Plan Change 7 was completed in 2021 and is now in effect. It sets a six-year maximum duration for *all* water permits in the region. It will remain until superseded by another plan change. ORC has processed all the deemed permits that were to expire in 2021 into short-duration water permits (they are now resource consents that expire in 2028).
- **to notify a Regional Policy Statement.** A proposed Regional Policy Statement is in final decision stages and has some legal weight. Once the hearing panel releases its recommendations, ORC must decide whether to accept or reject them.
- **to notify a new freshwater plan,** the purpose of which was to have a comprehensive freshwater planning framework in place to address the expiring deemed permits. At ORC's request, the Minister extended the deadline in his recommendations to 30 June 2024. This remains a recommended deadline for ORC, in spite of the change made to the RMA to extend the date for other councils to 31 December 2027.

Context for Otago Regional Council's current planning process

15. By undertaking pre-notification consultation with Ministers, local authorities and tangata whenua who are affected, and any customary marine title group in the area, ORC is following the standard process for regional plan changes in Schedule 1, section 3 of the RMA.²
16. Although ORC may consult anyone else during the draft LWRP's preparation, this initial phase is prior to notification and wider public input, and an opportunity to provide early feedback. ORC will then decide how to respond, which could include changes to the draft LWRP and timeframes for proceeding.
17. Joseph Mooney MP has shared with you a request for further direction for ORC, on the basis of concern that ORC is continuing with consultation notwithstanding Hon Bishop's letter which indicated changes would be made to the NPS-FM.

² 3 Consultation

(1) During the preparation of a proposed policy statement or plan, the local authority concerned shall consult—

- (a) the Minister for the Environment; and*
- (b) those other Ministers of the Crown who may be affected by the policy statement or plan; and*
- (c) local authorities who may be so affected; and*
- (d) the tangata whenua of the area who may be so affected, through iwi authorities; and*
- (e) any customary marine title group in the area.*

(2) A local authority may consult anyone else during the preparation of a proposed policy statement or plan...

The planning process is illustrated in a flow diagram here: [Plan Making • Environment Guide](#)

18. We understand that some ORC councillors preferred to delay consultation on the plan change until after having met with Ministers.
19. In bringing these matters to your attention, Joseph Mooney MP has also provided your office with 9(2)(h) [REDACTED].
20. At this stage, we understand the matters driving ORC's timeframes include:
- the previous Minister's recommendation to notify a plan change by June 2024 under section 24A of the RMA
 - mana whenua and community expectations
 - water permits beginning to expire in 2027, which are anticipated to then come in for replacement and lead to some being processed throughout 2026, and
 - the risk of ORC not having a fit-for-purpose planning framework in place through which to assess these resource consent applications.

Next steps

21. Your meeting is an opportunity to clarify ORC's freshwater planning intentions. This will help determine what action (if any) is needed to give effect to the Government's intentions with respect to Otago.
22. We can provide you with further advice after the meeting, if needed, including whether there is scope to issue a new/revised recommendation under section 24A of the RMA that has the effect of removing or amending the June 2024 deadline for notification of the proposed LWRP.
23. Appendix 4 provides an overview of RMA provisions that enable you to influence regional decision making, although the appropriateness of exercising these powers will be limited given ORC appears to be complying with the requirements of the RMA and the existing section 24A recommendation.

Signatures



Hayden Johnston

General Manager

Natural Environment Policy

25 January 2024

Hon Penny Simmonds

Minister for the Environment

Date

Appendix 1: Talking points for your meeting with Otago Regional Council

Has Plan Change 7 adequately addressed the issue of deemed permits in the short-term?

I understand that the original purpose of the recommendations made under section 24A of the RMA was to ensure that there was a comprehensive freshwater planning framework in place to address the expiring deemed permits.

I note that the interim plan change (Plan Change 7) was then completed and that all the deemed permits that would have expired in 2021 are now short-duration resource consents expiring around 2028.

What risk do these consents pose in the short term?

To what extent are the previous recommendations (made under section 24A of the RMA) driving the timeframes for ORC's pre-consultation process, and how has ORC factored in the timeframe extension?

The Government has given regional councils until the end of 2027 to notify draft plans that give effect to the NPS-FM, in order to avoid unnecessary compliance costs and compliance duplication.

To what extent are ORC's timeframes being driven by recommendations made under section 24A of the RMA, or other matters?

The application of Te Mana o te Wai is key, and it is subject to change

Work to replace the NPS-FM and rebalance Te Mana o te Wai to better reflect the interests of all water users has begun, consistent with the Government's coalition agreements.

I understand that Te Mana o te Wai, as currently expressed, is central to ORC's draft LWRP and embedded within the Regional Policy Statement notified in 2022.

Has ORC considered whether it is efficient to progress these parts of the LWRP at this time?

Resource management system changes

I welcome ORC's desire to work constructively with the Government, and to gain more insight into the next steps for resource management reforms. Rest assured the Government will aim to ensure all regional councils are kept in the loop and given as much certainty as possible as the reforms proceed.

Appendix 2: Copy of letter to councils from Hon Bishop



13 December 2023

Tēnā koe,

Intention to repeal the Natural and Built Environment Act 2023 and the Spatial Planning Act 2023 and replace the National Policy Statement for Freshwater 2020

It is a privilege to be able to write to you as the new Minister Responsible for RMA Reform. I look forward to meeting with you in due course.

As you may be aware, the Government has set out its commitments for its first 100 days in office. These include changes to resource management legislation.

Repeal of the Natural and Built Environment Act and the Spatial Planning Act

Our first step is to repeal the Natural and Built Environment Act 2023 (NBA) and Spatial Planning Act 2023 (SPA) before Parliament rises at the end of 2023, a commitment made in the Government's coalition agreements. Once the repeal is finalised, legislation will revert to the Resource Management Act 1991 (RMA).

To avoid unnecessary disruption through the repeal, a limited number of NBA functions will be retained including the fast-track consenting process while the Government develops a replacement fast-track consenting regime. We will introduce this new regime within the first 100 days of taking office alongside other changes to make the RMA faster and easier to use.

The Government is committed to reforming the resource management system. Repealing the NBA and SPA is the first phase of this reform.

In the second phase of the reform, the Government will amend the RMA to make it easier to consent new infrastructure including renewable energy, allow farmers to farm, build more houses, and enable aquaculture and other primary industries.

The third phase of the reform will replace the RMA with new resource management laws based on the enjoyment of property rights.

The Government is committed to honouring the undertakings made by the Crown through Treaty of Waitangi settlements and other arrangements. Treaty settlement arrangements reached between iwi and the Crown will be protected through the repeal and any future resource management reform processes.

Changes to the National Policy Statement for Freshwater Management

We have also decided to review and replace the National Policy Statement for Freshwater Management 2020 (NPS-FM) in this term of Government, following normal RMA processes for national direction.

We will also use the repeal legislation mentioned above to extend the RMA's statutory deadline for notifying freshwater planning instruments to implement the NPS-FM by three years to 31 December 2027. This will allow time to replace and then implement a revised NPS-FM.

We intend to use the planned RMA amendment bill to progress changes to the application of the hierarchy of obligations contained in the Te Mana o te Wai provisions of the NPS-FM. Our intent is to clarify that consent applicants do not have to demonstrate how their individual activity adheres to the hierarchy, and to disapply the hierarchy from council consent decisions. We will undertake targeted engagement with iwi/ hapū/Māori on these matters before making final decisions.

I appreciate the expertise that local government holds and the key role you will continue to play in the resource management system. I acknowledge that over the last two years or more you may have committed significant time and resources into the broader resource management reforms.

I look forward to working with you and understanding your perspective as we move forward. Should you have any questions in the meantime, please contact RM.reform@mfe.govt.nz.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Chris Bishop'.

Hon Chris Bishop
Minister Responsible for RMA Reform

Appendix 3: Copy of letter to councils from Environmental Defence Society

16 January 2024

Peter Scott
Chair
Canterbury Regional Council

Stefanie Rixecker
Chief Executive Officer
Canterbury Regional Council

By email: Councillor.Scott@ecan.govt.nz and stefanie.rixecker@ecan.govt.nz

Tēnā kōrua,

DEADLINE FOR NOTIFICATION OF FRESHWATER PLANNING INSTRUMENT

As you will be aware, the Government has recently extended the deadline for notification of regional freshwater planning instruments by three years. The purpose of this letter is to reiterate that, irrespective of this extension, the law remains that regional councils must give effect to the National Policy Statement on Freshwater Management 2020 (NPS FM) as soon as reasonably practicable.

Previously, the Resource Management Act 1991 (RMA) required regional councils to publicly notify freshwater planning instruments that give effect to the NPS FM *by 31 December 2024*.¹ The Resource Management (Natural and Built Environment and Spatial Planning Repeal and Interim Fast-track Consenting) Act 2023 amended that deadline, so that freshwater planning instruments must be notified *by 31 December 2027*.²

The new date is a drop-dead date by which notification must occur. It is not the date upon which notification should occur; the law requires that notification occur much sooner.

Regional policy statements and regional plans must give effect to the NPS FM.³ The RMA and NPS FM direct this must occur “as soon as reasonably practicable”.⁴ As soon as reasonably practicable has been interpreted by the Courts in several different contexts as having the same meaning as “forthwith”, which in turn means “without delay.”⁵ It is not synonymous with instantly, but it imports that there must be no significant delay.

The mandatory obligation to give effect to the NPS FM as soon as reasonably practicable is not affected by the new deadline for public notification of freshwater planning instruments.

¹ RMA, s80A(4)(b)

² Resource Management (Natural and Built Environment and Spatial Planning Repeal and Interim Fast-track Consenting) Bill, Sch 2

³ RMA, ss 62(3) and 67(3)(a)

⁴ RMA, s 65(7) and NPS FM, cl 4.1

⁵ E.g., *Labour Inspector v Vishnu Hospitality Ltd* [2018] NZERA Auckland 293 at [10]; *Scott v Ministry of Transport* [1983] NZLR 234 (CA) at 236.

Thus, the law remains that regional councils must continue working towards giving effect to the NPS FM without delay.

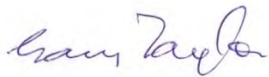
Any decision which results in unreasonable delay of your freshwater planning will be vulnerable to challenge as it is unlikely to comply with the legal requirement to give effect to the NPS FM as soon as reasonably practicable.

We are aware that you are well underway with your freshwater planning process and have been working towards public notification by the end of this year. There is a strong public interest in continuing with this process to improve water quality in your region without delay.

We will be engaging with your freshwater plan in due course, but we would also welcome an opportunity to discuss your plan development more generally. Specifically, we would appreciate an opportunity to discuss your intended plan development timeframes in light of the legal requirement to give effect to the NPS FM without delay.

We look forward to hearing from you as to a suitable time to meet.

Ngā mihi

A handwritten signature in blue ink, appearing to read 'Gary Taylor'.

**Gary Taylor CNZM QSO
Chief Executive
Environmental Defence Society**

Appendix 4: Summary of Ministerial options to influence regional decision making

Appendix 4: Summary of Ministerial options to influence regional decision making

Under the Resource Management Act 1991 the Minister for the Environment has a number of options to influence or intervene in regional decision making (listed below in order of increasing severity):

Consultation and submissions under Schedule 1
Regional councils must consult with the Minister as part of the standard process for preparing and making changes to policy statements and plans (Schedule 1, clause 3). This consultation must occur before the council notifies its proposed plan or plan change. The views presented to the local authority should be received with an open mind and should be given due consideration. In addition, any person (including the Minister) is able to make a submission once a proposed policy statement or plan is notified under Schedule 1, clause 6. Making a submission gives the Minister the same rights to be involved in subsequent processes as other submitters (for example, the right to appeal).
Section 27 – Power to request information
The Minister may require local authorities to provide information about the exercise of any of its functions/powers/duties under the RMA, which may inform whether any further action is required (for instance, under section 24A – although more investigation may be required before a recommendation is made under that section).
Section 142 – Power for the Minister to call in a matter
The Minister has the power to call in a “matter” at their own initiative (or on application) as a proposal of national significance. The “matters” that the Minister can call in include plan changes, and other types of applications (eg resource consents, designations). The criteria in the RMA for qualifying a proposal as nationally significant are broad, and not restricted to any particular types of activities. The Minister may have regard to any relevant factor, including (but not limited to) whether the proposal has aroused widespread public concern, involves significant use of natural and physical resources, or affects New Zealand’s international obligations. When a matter is called in, the relevant Minister decides who the decision-making body will be (either a Board of Inquiry or the Environment Court). Regardless of whether the Minister decides to call in a matter, the Minister may still make a submission on the matter.
Section 25A – Power to direct the preparation, variation or change of a plan
The Minister is able to require a regional council to prepare a plan or to change a plan, direct the matters that must be addressed in the plan or change to the plan, and specify when the plan or change to the plan must be notified. The preparation, change or variation of a plan must be to address a resource management issue (as listed in section 30), such as issues relating to regional council’s functions on the taking, use, damming, and diversion of water. This is a formal check on council plan-making process and provides the ability to signal implementation or policy issues and compel action. However, the Minister is unable to determine the outcome of the plan change or review.
Section 311 Environment Court declaration
This section enables any person, including the Minister, to seek a declaration from the Environment Court. There are several grounds under which a declaration can be sought, including failure of a plan to give effect to national direction, including proposed provisions of national policy statement.
Section 24A – Powers to investigate and make recommendations
The Minister is able to investigate and make recommendations on a local authority’s performance of its function/powers/duties under the RMA (or failure/omission to perform its functions/powers/duties). Further action is possible under sections 25-25A (see below). There are no preconditions set for the use of this power. It could be exercised to improve council performance and to inform decisions about whether other, more severe action is warranted. This power is best for a broad failing which requires central government investigation.
Section 25 – Power to appoint person in place of a local authority
Where any local authority is not performing any of its functions/powers/duties under the RMA to the extent that the Minister considers necessary to achieve the purpose of the Act, the Minister is able to appoint one or more persons in place of a local authority, to perform all or any of those functions/powers/duties in place of the local authority. There are preconditions that must be satisfied to use this power: • The local authority must be given written notice specifying the reasons why the Minister proposes to make the appointment; and • The local authority must be given a reasonable opportunity to satisfy the Minister that it has not failed to exercise or perform any of its functions, powers, or duties, and if they do not succeed in satisfying the Minister of this, must be given time (as specified in a notice, being not less than 20 working days from the date of the notice) to remedy the defaults complained of.

Aide memoire: Example Freshwater Farm Plan

Date submitted: 26/01/2024

Tracking number: BRF-4135

Security level: Policy and Privacy

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Andrew HOGGARD Associate Minister for the Environment	Note & discuss with officials
CC Hon Penny SIMMONDS Minister for the Environment	For noting only

Appendices and attachments
1. Example Freshwater Farm Plan

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Authors	Pippa Auld Michael Edmondson		
Responsible Manager	Gina McGrath		
General Manager	Sara Clarke		✓

Example Freshwater Farm Plan

1. Attached is an example Freshwater Farm Plan (FW-FP). This example is based on a real FW-FP for a 401-hectare mixed cropping, dairy grazing, and sheep and beef operation in South Canterbury. It has been developed with input from the farmer and a farm planning expert.¹
2. We consider this example FW-FP would meet certification requirements and support a straightforward audit. A farmer would also likely be able to rely on this example to meet relevant regional plan requirements and intensive winter grazing rules (and therefore not require a consent for such activities).
3. As noted in *BRF-4056: Initial briefing on freshwater farm plans*, the FW-FP regulations do not require farmers and growers to use a specific template when writing their FW-FP.
4. This example shows how the farmer could identify and set practical actions to address on-farm risks to freshwater based on the specific catchment needs (as set by the relevant council), and the farm's landscape and activities.
5. In this example, most actions reflect a farmer taking a typical risk-based approach to managing freshwater risks for this type of farm. Additional actions address the relevant council's focus on reducing nitrogen load in area, managing issues related to an over-allocated catchment, and meeting other regulatory requirements (such as intensive winter grazing rules).

Background

MfE is engaging with industry to support existing industry farm plans and IAPs to match FW-FP requirements

6. We are working with industry organisations to simplify how farmers enter farm data for FW-FPs. Approximately 16 organisations have (or intend to provide) a FW-FP template or align their existing programmes/templates to FW-FP requirements for their farmers and/or growers. We estimate that at least 10,000 – 12,000 of the approximately 34,000 farmers and growers nationally (currently required to have a FW-FP) can do so through their existing industry plans.
7. The dairy sector will have good available support (and templates) to develop their FW-FPs through their milk processors. Synlait is on track to be fully aligned with FW-FP certification requirements in early 2024. Fonterra is also adapting their plans to align with FW-FP requirements. Westland Milk, Open Country Dairy, Tatua and Miraka are working to deliver a tailored FW-FP option for their farmers.

¹ The administrative details and other identifying information has been removed or altered in the example to protect the privacy of the farm operator. Permission has been given by the farm operator to use and share all information included in this plan.

8. For horticulture, representatives from both NZGAP and Sustainable Winegrowers New Zealand² will be working with us to support industry assurance programmes (IAPs) to adapt their existing verification services to meet FW-FP certification and audit requirements.³
9. Industry support for developing FW-FPs in the red meat sector is still developing. However, Farm Assurance Programme Plus (FAP+) will be fully aligned with FW-FP requirements by early 2024.

Support is in place to reduce FW-FPs costs and streamline development

10. Farmers who are part of industry programmes that meet FW-FP requirements are likely to face significantly lowered costs in developing their FW-FP.
11. 9(2)(f)(iv) [REDACTED]
[REDACTED] Ministers have upcoming choices regarding the degree and timing of farm plan development support they wish to see funded through the FW-FP programme
12. Additionally, we (with MPI) are supporting catchment groups working to provide farmers and growers support to develop FW-FPs. For example, catchment group King Country Rivercare is running workshops with local sheep and beef farmers. In these workshops each farmer is developing their FW-FP using a straightforward digital template.
13. We expect approaches like this to greatly lower the cost of developing a FW-FP for farmers who may otherwise look to a rural advisor or consultant for support.

Next steps

14. We'd like to meet with you to discuss this example, and some early choices you have on FW-FPs (as outlined in BRF-4056).

Signatures



Sara Clarke
General Manager –System Enablement
Date 26/1/24

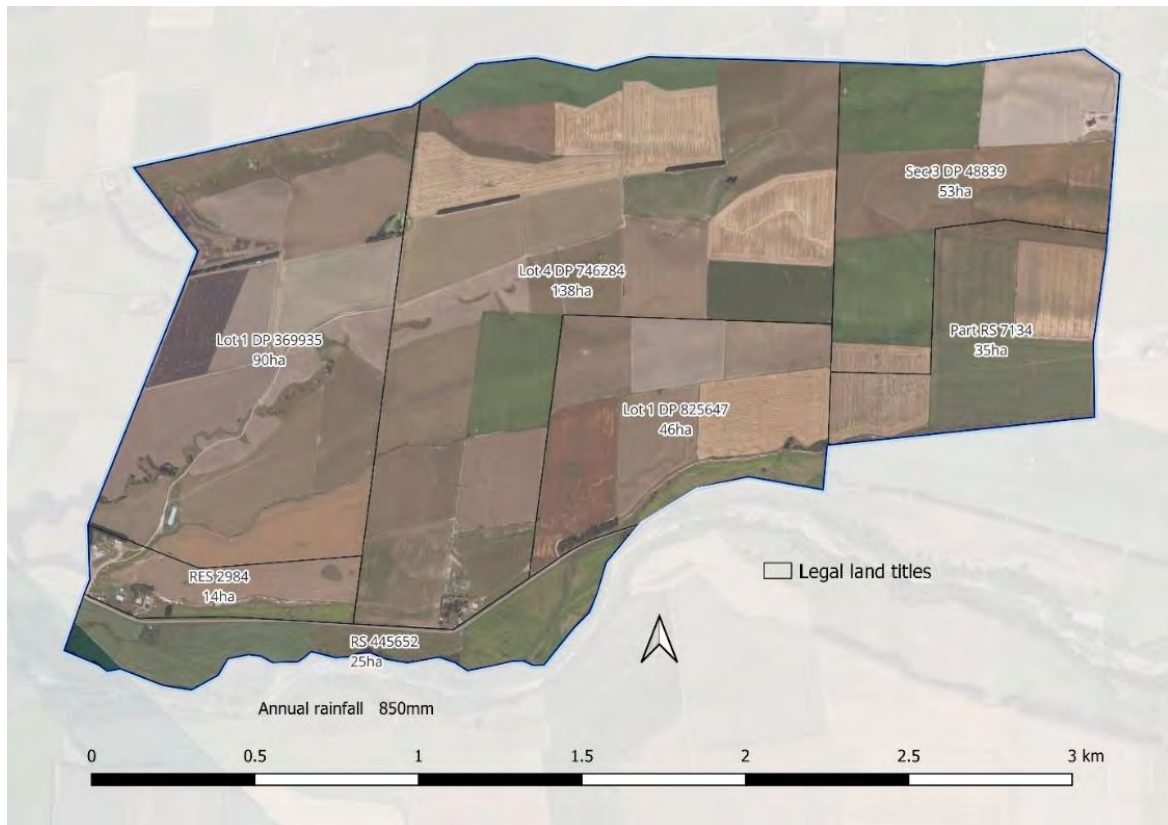
Hon Andrew HOGGARD
Associate Minister for the Environment
Date

² Alongside representatives from the red meat, dairy, and farm assurance sectors

³ See paragraphs 24 to 26 in BRF-4056 for further details.

⁴ 9(2)(f)(iv) [REDACTED]

Example Freshwater Farm Plan



* **Disclaimer:** The information below is provided as an example for illustrative purposes only. Identifying details have been removed to protect the privacy of the farmer on whose plan this example is based.

Table of Contents

Example Freshwater Farm Plan	1
1. Farm Story	3
2. Administrative details	4
3. Maps	5
4. Catchment challenges, values and context	7
5. Land Units	9
6. Identifying Risk	14
7. Action plan	20

1. Farm Story

This section is not a certification requirement.

In this section, the farmer can highlight your achievements so far and set out key principles, goals and objectives for the future of the property.

Farm history

XXXX Farm is a 401 hectare (approximately 375 ha effective) property. The farm is a mixed cropping, dairy support grazing and sheep and beef grazing enterprise, that runs alongside part of the XXXX River, in Canterbury.

The farm has been irrigated since 1992, with focus on speciality crops which provide the main income.

XXXX Farm has been part of the XXXX family for many generations, with the rolling hills originally a sheep, beef and mixed cropping farm. Dairy support grazing has been implemented into the farm system in efforts to diversify income. Approximately 160 - 205 ha of land is cropped annually, predominantly with wheat, barley and higher value cash crops. Sheep and beef grazing occurs over an area of up to 160 - 220 ha on permanent pasture and between rotation cropping land. Dairy support grazing occurs on approximately 75 ha.

Key challenges

The main challenges seen on the farm are:

- heavy soils at risk of pugging, compaction and run-off
- drought risk on dryland areas.

2. Administrative details

Business Details			
Name of Farm Operator	Luke Farmer	Contact Details	XXXXfarm@xtra.co.nz
Name(s) of owner, lease, or license holder (if different to farm operator)	-	Contact details	-
New Zealand Business Number (if applicable)	XXXX XXX XXX XXX		
Name of person who has prepared this plan	XXX XXXXXX		
Farm address	113 XXX River road, XXXXXX XX		
Legal land titles and parcels	RES 2984, RS 445652, Lot 1 DP 369935, Lot 1 DP 825647, Lot 4 DP 746284, Sec 3 DP 48839, Part RS 7134		

Farm Details	
Total farm area (ha)	401
Leased or licensed area if any (ha)	Nil
Any current resource consents held in respect of the farm that are relevant to the preparation of the freshwater farm plan	RMAXXXXXX – Surface water take for irrigation IWGXXXXXX – Intensive winter grazing
Land use(s)*	Arable cropping (predominant land use) Dairy support grazing Sheep and beef grazing

3. Maps

Mapping requirements	Map No.
Features related to inherent vulnerabilities	
1. farm boundaries, indicating any leased or licensed land	1
2. areas of land use, if the farm is spilt into distinctly different land uses	n/a
3. location of land unit	2
4. surface freshwater bodies	5
5. artificial freshwater bodies	n/a
6. soil	3
7. landform, including slope	4
8. potential areas of intensive winter grazing and critical source areas within areas of intensive winter grazing	4
9. critical source areas that are not within areas of intensive winter grazing	5
10. drainage systems and areas	n/a
11. irrigation and frost protection.	2
Features related to farming/growing activities	
1. fencing to exclude stock from freshwater bodies	5
2. planted riparian areas	5
3. soil erosion control plantings or works	n/a
4. effluent systems and application areas	n/a
5. water-take bores and surface water abstraction points or intakes including fish screens	5
6. freshwater crossings, including formed crossings, such as bridges, culverts, and fords and unformed crossings	5
7. stock-holding areas, including feed pads, winter pads, stand-off pads, and loafing pads	n/a
8. other livestock-related infrastructure, including milking sheds, wintering barns and shelters, and stock yards	5

Mapping requirements	Map No.
9. farm accessways such as formed roads, tracks, races, and underpasses	5
10. point source discharges including, rubbish dumps, offal pits, silage pits, feed storage bunkers or sheds, agrichemical, fertiliser, and fuel storage sites, and agrichemical washdown areas	5
11. private drinking water supply points.	n/a
Catchment context information	
1. Significant indigenous freshwater biodiversity and habitat	n/a
2. Identified fish spawning areas*	n/a
3. Identified sites of cultural significance such as mahinga kai or wāhi tapu sites*	n/a
4. Any identified recreational sites of significance associated with waterways*	n/a
New physical works	
	n/a



Map 1. Farm boundary – Property boundaries and legal titles

4. Catchment challenges, values and context

Written summary of any identified risks that related to catchment context (if applicable)

Catchment values or priorities

The farm is within the XXXX Area, which is part of the XXXX region. Plan Change 3 of the Land and Water Region Plan (LWRP) addresses the priorities and values of the region.

In the last 30 years, water use and irrigation have increased substantially in the XXXX region. In general, water quality has declined and in-catchment water use is at or beyond sustainable limits for both surface and groundwater.

For the XXXX Area, the LWRP aims to improve freshwater flows and habitat over time, while maintaining freshwater nitrate-nitrogen concentrations at a level where there is No Observable Effect on 90% of species, and providing for development at good farm practice.

Cultural significance of the catchment

The XXXX River, flows from the XXXX Hills towards the coastline. The name of the river originates from a passenger on the Ārai-te-uru waka, which capsized off Matakāea (Shag Point) on the Otago coastline. Local kaumātua have recorded the XXXX River as a kāinga mahinga kai (food-gathering place), where aruhe (bracken fernroot), kāuru (tī kouka/cabbage tree root), and tuna (eels) were gathered.

Information sourced from Ngāi Tahu Atlas.

Regional regulatory requirements

Plan Change 3 applies to the farm. Relevant objectives/policies include:

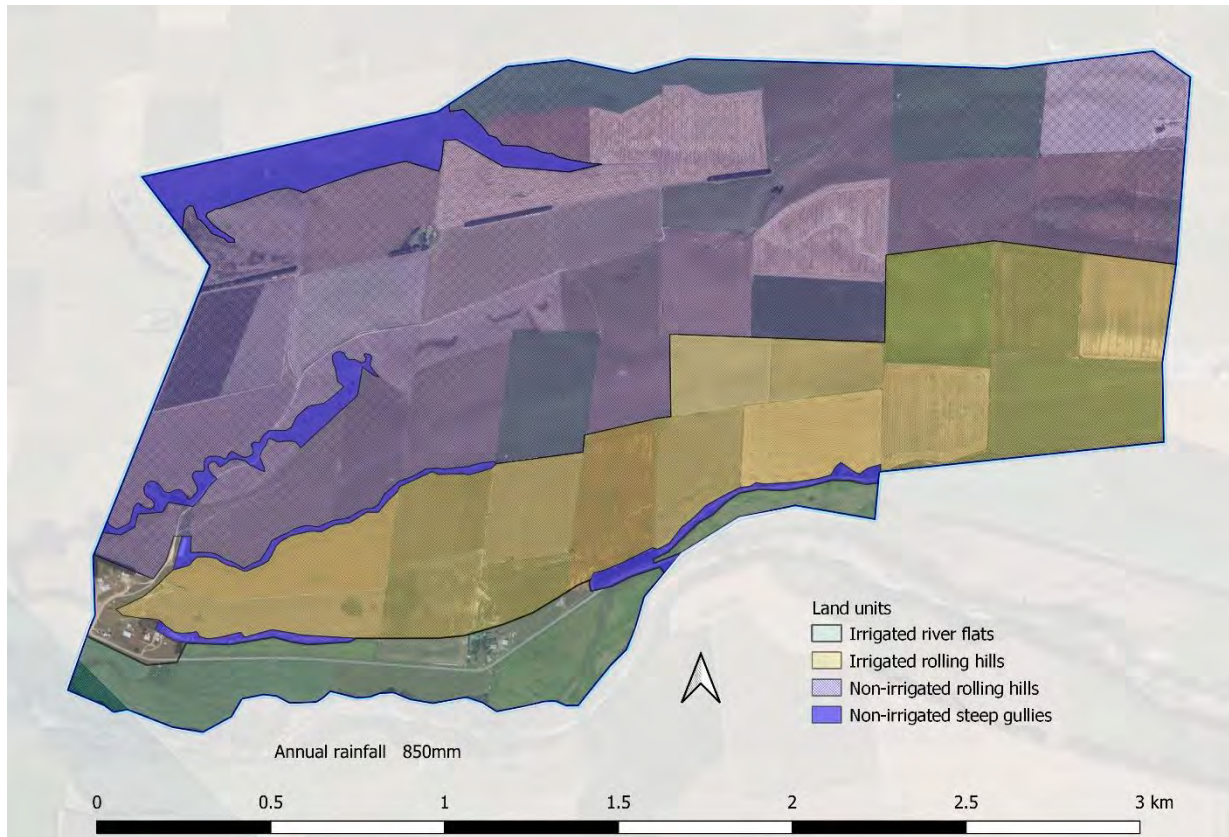
- improving river flows, by:
 - capping current water allocation and phasing out over-allocation over time by reducing the quantum of water able to be abstracted from over-allocated resources and enabling access to alternative supplies such as new irrigation scheme water, on-farm storage and, where appropriate, deep groundwater
- improving freshwater habitats
- restricting nitrogen load losses from the catchment, by requiring:
 - individual farming activities to comply with the nitrogen baseline, flexibility cap and maximum cap loss rate conditions in Rule XXX.X.X to be a permitted activity
- reduce losses of microbial contaminants, phosphorus and sediment, through:
 - the use of Farm Environment Plans
 - and Region-wide stock exclusion provisions
- enable local iwi to exercise kaitiakitanga and enhance mahinga kai through:

o minimising the discharge of any contaminants into water, protecting natural wetlands and springheads, and improving flows and water quality of spring-fed streams over time.
Secondary legislation requirements: • Intensive winter grazing
Sites of cultural or community significance The XXXX River is a kāinga mahinga kai (food-gathering place), where aruhe (bracken fernroot), kāuru (tī kouka/cabbage tree root) and tuna (eels) are gathered. A coastal trail is near the property and is used by walkers, runners and cyclists.
Species or ecosystems of cultural or community significance The XXXX river continues to provide important habitat for culturally significant indigenous species that are threatened and at risk, including tuna (eels), trout, salmon and inanga (whitebait). The XXXX river and some of the larger tributaries also provide important habitat for braided river birds and the headwaters provide habitat for threatened species such as the blue duck. Catchment fisheries are particularly important to Ngāi Tahu due to the practice of catching tuna and inanga in the narrows during their migration between the river and coastal water.
Priority contaminants Nitrogen has been identified as the priority contaminant of the catchment in Plan Change 3, LWRP.

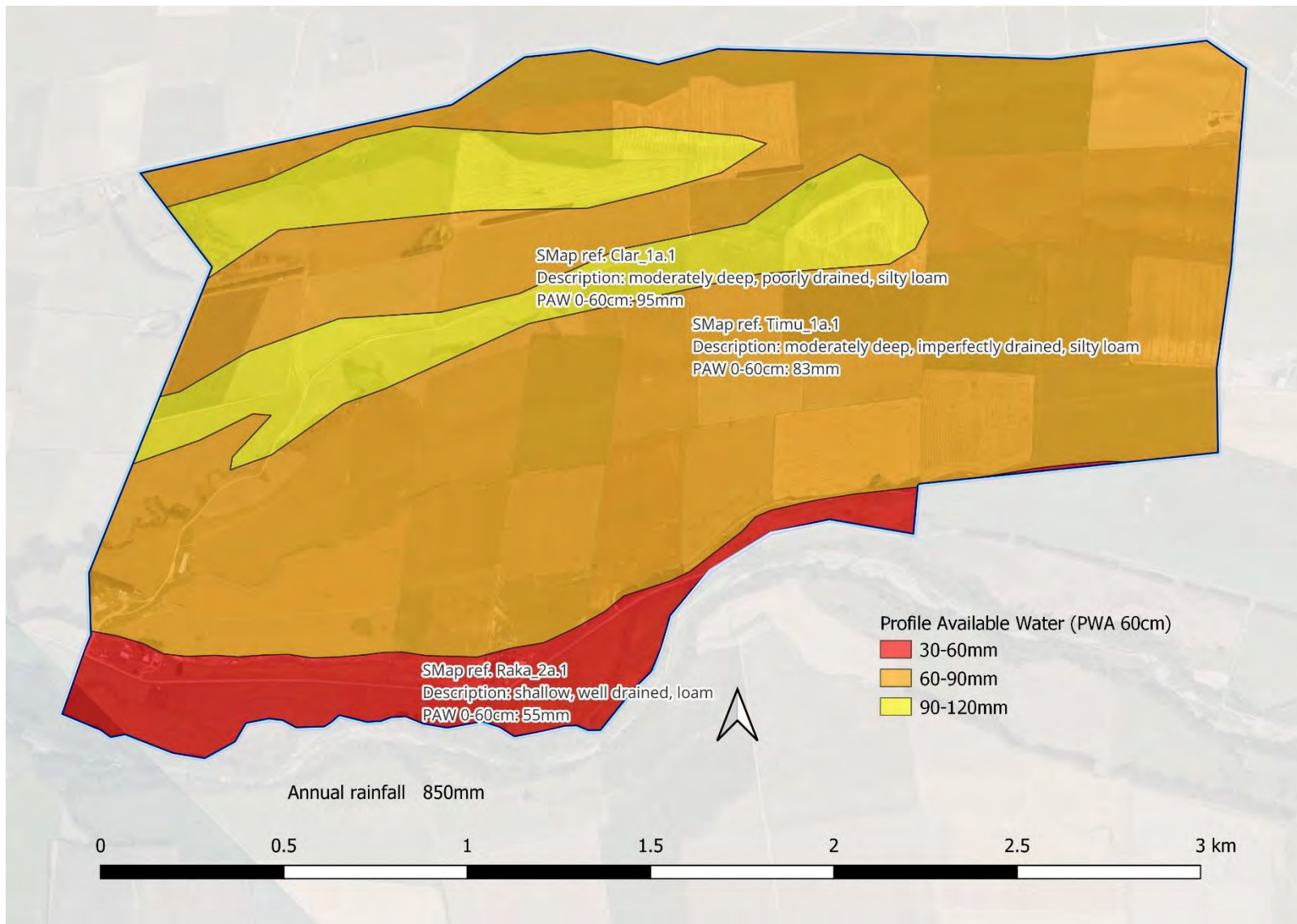
5. Land Units

XXXX Farm – Land unit maps

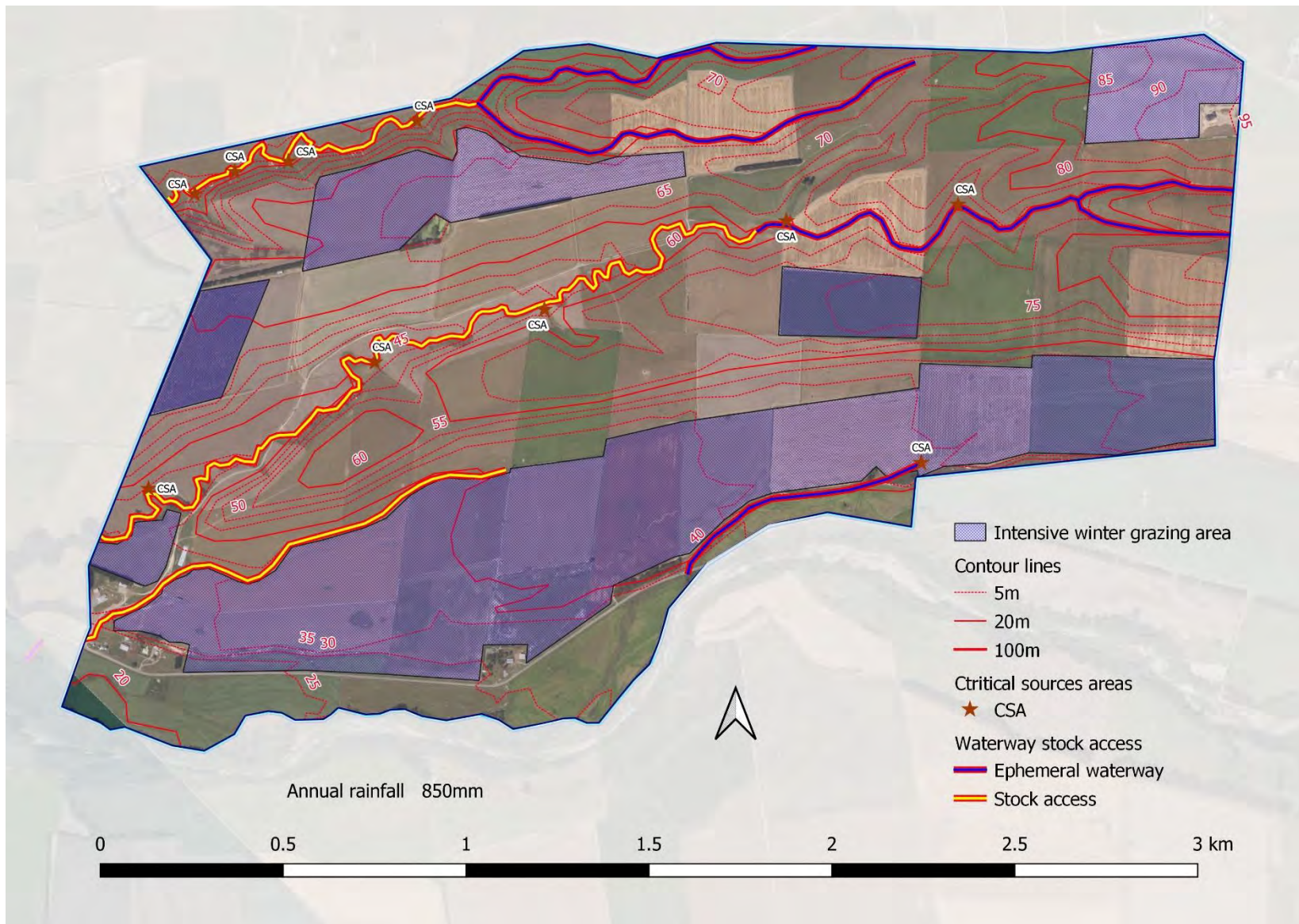
There are four land units on XXXX Farm. These are shown in Map 2 and described below. Map 3 sets out the main soil types on the property and Map 4 shows the contour of the property and possible areas of intensive winter grazing.



Map 2. Land units



Map 3. Soil types



Map 4: Contour slope and possible areas of intensive winter grazing

XXXX Farm-- Land unit and inherent vulnerabilities

Inherent vulnerabilities are risks to freshwater and freshwater ecosystems from the biophysical features of the land including from irrigation and/or drainage.

To meet certification requirements, a famer must identify the inherent vulnerabilities in each land unit.

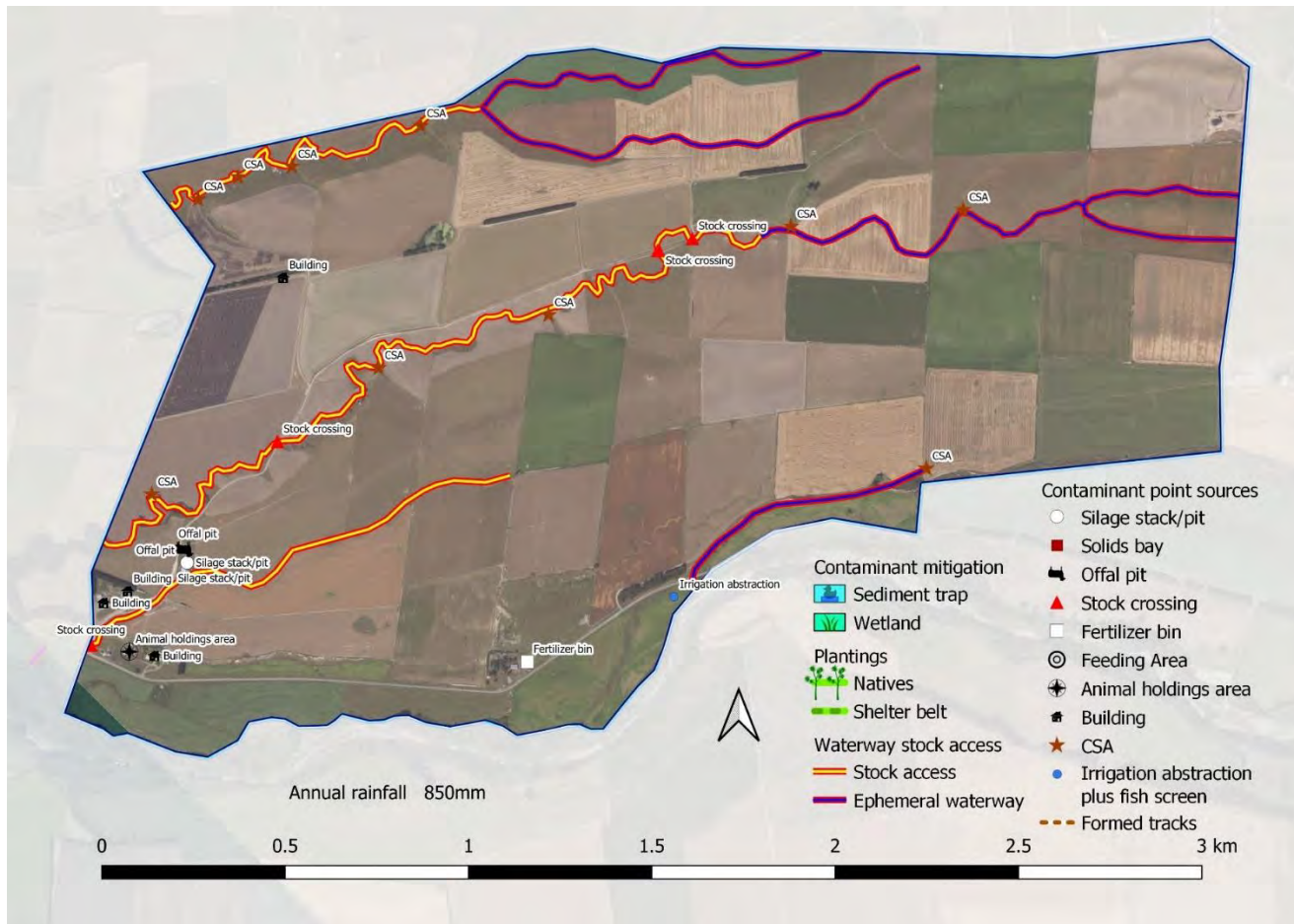
LU Number	Land Unit name	Map No.	Land unit description	Inherent Vulnerabilities
A	Irrigated river flats	2	A 22 ha free draining river flat area with good access and irrigated via guns. The land uses undertaken on the unit are mixed cropping and pastoral grazing by sheep, beef and dairy support cattle. The land unit runs alongside the XXXX River, which has high community and cultural value (see Section 4 above). The Rakaia Stony Loam soil (Raka_2a.1) within the unit is very shallow, well drained stoney silt and sand, with a PAW of 55 mm at 60 cm depth.	High nutrient leaching risk due to the free draining nature of the soils and potential over-watering from irrigation. High drought risk without irrigation due to the free draining nature of soils and drought prone climatic conditions. A low probability, but high impact, flooding risk associated with the proximity to the XXXX River and the low-lying land, which would result in high nutrient and sediment loss.
B	Irrigated rolling hill	2	A 38 ha rolling hills area that is irrigated via guns. The land unit is used for mixed cropping and pastoral grazing by sheep, beef and dairy support cattle. Sites of significance within the land unit include multiple intermittent streams and a wetland. The dominant soil is Timaru (Timu_1a.1), a moderately deep silt that is poorly drained. The soil fertility is suitable for cropping and the water holding capacity reduces irrigation requirements when managed well.	High water logging, pugging and compaction risk, especially with winter grazing, due to the heavy soils. High run-off risk associated with irrigation management, heavy soils and topography (eg, slopes).

C	Non-irrigated rolling hills	2	A 311 ha dryland rolling hills area used for mixed cropping and pastoral grazing by sheep, beef and dairy support cattle. Sites of significance within the land unit include multiple intermittent streams and a wetland. The two predominant soils, Claremont (Clar_1a.1) and Timaru, are heavier, deep silts that are poorly and imperfectly drained. The soils fertility is suitable for cropping and the water holding capacity reduces rainfall requirements.	High water logging, pugging and compaction risk, especially with winter grazing, due to the heavy soils. Moderate nutrient run-off risk associated with rainfall, heavy soils and topography (slope).
D	Non-irrigated gullies	2	A 30 ha dryland gullies area. Ineffective gullies with regenerating bush/scrub and steeper edges of intermittent waterways, which are sites of significance, are fenced off. Remaining areas in the land unit are lightly grazed. Claremont and Timaru are the two predominant soils in the land unit.	Moderate nutrient and sediment run-off and erosion risk associated with rainfall (eg, heavy rain), topography (eg, steep edges of waterways and/or gullies) and/or stocking rates (eg, heavy stocking, especially in adverse weather).

6. Identifying Risk

A farmer must demonstrate identify risks to freshwater from both the inherent vulnerabilities and the farming/growing activity occurring in a land unit

A farmer must consider any relevant catchment context factors when identifying and assessing each risk.



Map 5. Farm infrastructure features

Land unit no.	Farming/growing activity group	Farming/growing activity sub-group(s)	Farming/growing activity description	Inherent vulnerabilities	Catchment context	Risk group(s)	Risk
A & B	Irrigation	Application management	A hard hose and soft hose gun are used to irrigate 60 ha during the season. Irrigation priority is given to high value crops, with fodder crops and pasture being irrigated only if there is adequate irrigation water.	Close proximity to water bodies Presence of irrigation Soil characteristics Topography: Slopes	Improving river flows Restricting nitrogen losses Reduce losses of microbial contaminants, phosphorus and/or sediment XXXX River and inhabitant species have cultural and community significance	Nitrogen – Groundwater and surface water Sediment Phosphorus – Groundwater and surface water Pathogen – Groundwater and surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Due to high application rates (mm/hr), there is a high risk of nutrient leaching through the soil profile on free draining soils or sediment and particulate P runoff on heavier soils, if irrigation is not carefully managed.
A & B	Irrigation	Take and application infrastructure	All irrigation on farm is taken from a surface water abstraction point (SWAP) on the XXXX River and distributed to the guns through an underground mainline connected to above ground irrigation hoses.	Close proximity to water bodies Erosion risk Presence of irrigation Soil characteristics Topography: Slopes	Restricting nitrogen losses Reduce losses of phosphorus Improving river flows	Sediment Nitrogen – Groundwater and surface water Phosphorus – Groundwater and surface water	Old irrigation infrastructure on farm (30+ years), including worn infrastructure, and leaky camlocks and irrigation lines, can lead to water losses and pressure reductions along the system, causing irrigation spread pattern issues. This results in a medium risk of water and nutrient leaching and/or runoff.

Land unit no.	Farming/growing activity group	Farming/growing activity sub-group(s)	Farming/growing activity description	Inherent vulnerabilities	Catchment context	Risk group(s)	Risk
A & B	Irrigation	Take and application infrastructure	All irrigation on farm is taken from a surface water abstraction point (SWAP) on the XXXX River and distributed to the guns through an underground mainline connected to above ground irrigation hoses.	Presence of irrigation Climate: Drought risk	Improving river flows XXXX River and inhabitant species have cultural and community significance	Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Water abstraction from river at times of low environmental flows may result in moderate risk to the health and habitats of sites and species of significance.
All	Nutrients	Nutrient management, nutrient application	Phosphate and nitrogen fertilisers are applied over majority of the farm.	Close proximity to water bodies Soil characteristics Topography: Slopes	Restricting nitrogen losses Reduce losses of phosphorus XXXX River and inhabitant species have cultural and community significance	Nitrogen – Groundwater and surface water Phosphorus – Groundwater and surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Fertiliser is applied to land at rates and/or times that do not match optimal plant growth and/or feed budget requirements, resulting in a high risk of nutrient leaching and/or runoff.
All	Nutrients	Nutrient application	Application of nutrients to land.	Close proximity to water bodies	Restricting nitrogen losses Reduce losses of phosphorus XXXX River and inhabitant species have cultural and community significance	Nitrogen – Surface water Phosphorus – Surface water	Low risk for direct application of nutrients to water.

Land unit no.	Farming/growing activity group	Farming/growing activity sub-group(s)	Farming/growing activity description	Inherent vulnerabilities	Catchment context	Risk group(s)	Risk
C	Nutrients	Nutrient storage and loading	Bulk nutrient storage on farm.	Close proximity to water bodies	Restricting nitrogen losses Reduce losses of phosphorus	Nitrogen – Surface water Phosphorus – Surface water	Fertiliser losses from storage facilities resulting in low risk of nutrient runoff to freshwater.
A, B & C	Land and soil	Cultivation	Cultivation of paddocks on soils ranging from light river flats to heavy rolling downs prior to re-grassing or cropping. Direct drilling and minimum tillage are the predominant cultivation techniques.	Close proximity to water bodies Erosion risk Soil characteristics Topography: Slopes	Reduce losses of microbial contaminants, phosphorus and/or sediment Cultural and/or community significance: - XXXX River and inhabitant species - Wetlands - Intermittent streams.	Sediment Phosphorus – Surface water Pathogen – Surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	High sediment and nutrient runoff risk to waterbodies from cultivated paddocks, especially on rolling heavy soils.
B, C & D	Land and soil	Pasture and grazing management	Stock grazing pasture on steeper areas of farm and grazing at environmentally high-risk times of year.	Close proximity to water bodies Erosion risk Presence of irrigation Soil characteristics Topography: Slopes	Restricting nitrogen losses Reduce losses of microbial contaminants, phosphorus and/or sediment Cultural and/or community significance: - XXXX River and inhabitant species - Wetlands - Intermittent streams.	Sediment Phosphorus – Groundwater and surface water Nitrogen – Groundwater and surface water Pathogen – Groundwater and surface water Impact on site(s) significant to tangata whenua	Medium sediment and nutrient runoff risk to waterways as a result of soil disturbance, including compaction, soil pugging and bare land.

Land unit no.	Farming/growing activity group	Farming/growing activity sub-group(s)	Farming/growing activity description	Inherent vulnerabilities	Catchment context	Risk group(s)	Risk
						Impact on species significant to tangata whenua	
A, B & C	Intensive winter grazing	Site selection	Approximately 56 ha of brassica crops are planted from October-December for winter grazing (late May to mid-August) by mixed aged dairy cows.	Close proximity to water bodies Erosion risk Presence of irrigation Soil characteristics Topography: Slopes Wetlands	Reduce losses of microbial contaminants, phosphorus and/or sediment. Cultural and/or community significance: - XXXX River and inhabitant species - Wetlands - Intermittent streams.	Sediment Phosphorus – Groundwater and surface water Nitrogen – Groundwater and surface water Pathogen – Groundwater and surface water	Poor site selection can lead to a medium risk of sediment and/or nutrient runoff to waterbodies from paddocks during crop establishment, grazing and post-grazing.
B & C	Intensive winter grazing	Grazing management	Approximately 56 ha of brassica crops are planted from October-December for winter grazing (late May to mid-August) by mixed aged dairy cows.	Close proximity to water bodies Erosion risk Presence of irrigation Soil characteristics Topography: Slopes	Reduce losses of microbial contaminants, phosphorus and/or sediment Cultural and/or community significance: - XXXX River and inhabitant species - Wetlands - Intermittent streams.	Sediment Pathogen – Groundwater and surface water Phosphorus – Groundwater and surface water Nitrogen – Groundwater and surface water	Intensive grazing of winter crops increases soil damage/degradation risk, including soil pugging and compaction. Intensive winter grazing has a high risk of sediment, pathogen and nutrient losses to waterbodies.
B & C	Intensive winter grazing	Post grazing management	Post grazing soil and paddock management.	Erosion risk Presence of irrigation Soil characteristics Topography: Slopes	Reduce losses of microbial contaminants, phosphorus and/or sediment. Cultural and/or community significance: XXXX River and inhabitant species	Sediment Phosphorus – Groundwater and surface water Pathogen – Groundwater and surface water	High risk of sediment, pathogen and nutrient losses and/or runoff into surrounding critical source areas and/or waterways.

Land unit no.	Farming/growing activity group	Farming/growing activity sub-group(s)	Farming/growing activity description	Inherent vulnerabilities	Catchment context	Risk group(s)	Risk
					- Wetlands - Intermittent streams.	Nitrogen – Groundwater and surface water	
All	Waterbodies and wetlands	Critical source areas (CSA's)	CSAs are found throughout the farm and require appropriate management.	Close proximity to water bodies Erosion risk Presence of irrigation Soil characteristics Topography: Slopes Wetlands	Cultural and/or community significance: - XXXX River and inhabitant species - Wetlands - Intermittent streams / CSA's - Natural spring in paddock HHH.	Sediment Impact on site(s) significant to tangata whenua Impact on area of indigenous biodiversity	CSA's not being identified and/or being poorly managed, resulting in a high risk of damage to the function and character of CSA's, including wetlands.
B	Point source	Silage pits and feed bunker	Silage pit is located close to the track on heavy clay soils and above a gully on the farm that has intermittent water flows.	Close proximity to water bodies Topography: Slope	Reduce losses of microbial contaminants, phosphorus and/or sediment	Nitrogen – Groundwater and surface water Phosphorus – Groundwater and surface water Pathogen – Groundwater and surface water	The unbunded sloping nature of the silage pit leads to a low to medium risk of leachate runoff to the gully during periods of wet weather.
C	Point source	Offal pit	Dead stock are buried in the offal pit on farm, which is located in paddock AAA.	Soil characteristics	Reduce losses of microbial contaminants, phosphorus and/or sediment.	Pathogen – Groundwater and surface water	Low risk of contaminant runoff into waterways/ groundwater if offal pit is not well managed.

7. Action plan

To meet certification requirements a freshwater farm plan must include an action plan outlining what the farmer will do to manage the identified risks

Risk			Activity		Action							
Land unit no.	Risk group	Overall risk	Activity group	Activity sub-group	Specific action	Map no.	Category	New or existing	Using FWFP to meet other regulations	Implementation date	Date detail	Evidence
A & B	Nitrogen: Groundwater & surface water Sediment Phosphorus: Groundwater & surface water Pathogen: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Due to high application rates (mm/hr), there is a medium to high risk of nutrient leaching through the soil profile on free draining soils or sediment and particulate P runoff on heavier soils, if irrigation is not carefully managed.	Irrigation	Application management	Irrigation system has application depth and uniformity test (bucket test) completed at least every three years. This test also measures instantaneous application (mm/hr) of the system. Bucket testing results are kept. By understanding the rate, depth, and uniformity of irrigation applications to land, decisions can be made as to how adequate the current irrigation application system is for the soils on the property.	-	Catchment	Existing	N/A	28 February 20XX	Ongoing from	Evidence: Bucket test results kept.
A & B	Nitrogen: Groundwater & surface water Sediment Phosphorus: Groundwater & surface water Pathogen: Groundwater and surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Due to high application rates (mm/hr), there is a medium to high risk of nutrient leaching through the soil profile on free draining soils or sediment and particulate P runoff on heavier soils, if irrigation is not carefully managed.	Irrigation	Application management	If bucket test results show application rates (mm/hr) and depths (mm) that are too high for receiving soil infiltration, application depth of irrigation system (guns) will be adjusted by either speeding up and/or changing nozzles to ensure that application depths and rates are suitable for soil types and slopes over which they are being applied. Redo bucket test after adjustments made to assess if system changes meet intended purpose.	-	Catchment	New	N/A	28 February 20XX	Ongoing from	Evidence: Updated bucket test results. Records of adjustments made to system.

A & B	Nitrogen: Groundwater & surface water Sediment Phosphorus: Groundwater & surface water Pathogen: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Due to high application rates (mm/hr), there is a medium to high risk of nutrient leaching through the soil profile on free draining soils or sediment and particulate P runoff on heavier soils, if irrigation is not carefully managed.	Irrigation	Application management	Understanding the soil moisture status of irrigated land allows better decision making as to when to apply irrigation, reducing the risk of excessive irrigation, nutrient leaching and/or sediment runoff. Upgrade the approach to irrigation scheduling by installing soil moisture monitoring technology and/or develop and keep up to date soil water budgets on land units A and B.	-	Catchment	New	N/A	28 February 20XX	Ongoing from	Evidence: Soil moisture monitoring over time, and farmer understanding of thresholds for refill and field capacity points.
A & B	Sediment Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water	Old irrigation infrastructure on farm (30+ years), including worn infrastructure, and leaky camlocks and irrigation lines, can lead to water losses and pressure reductions along the system, causing irrigation spreading pattern issues. This results in a medium risk of water and nutrient leaching and/or runoff.	Irrigation	Take and application infrastructure	Have accredited irrigation engineer complete full system assessment, from pump to dispersal, to assess where losses are occurring in system and what corrective actions are to be taken to have the system working at a satisfactory level (as determined by irrigation engineer).	-	Catchment	New	N/A	28 February 20XX	Completed by	Evidence: Assessment report with recommendations and actions implemented as a result of the report.
A & B	Sediment Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water	Old irrigation infrastructure on farm (30+ years), including worn infrastructure, and leaky camlocks and irrigation lines, can lead to water losses and pressure reductions along the system, causing irrigation spreading pattern issues. This results in a medium risk of water and nutrient leaching and/or runoff.	Irrigation	Take and application infrastructure	Implement any corrective actions (system changes) identified as necessary in system assessment report to bring the system function up to a satisfactory level.	-	Catchment	New	N/A	30 November 20XX	Completed by	Evidence: Assessment report with recommendations and actions implemented as a result of the report.
A & B	Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Water abstraction from river at times of low environmental flows may result in moderate risk to the health and habitats of sites and species of significance.	Irrigation	Take and application infrastructure	Electronically measure water use every 15 minutes. Submit records to the regional council as required by the Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020, to ensure takes are within permitted limits at all		Regulated	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Recorded data and telemetry reports to regional council.

					times, with any Low Flow restrictions that may be implemented on river in accordance with water take consent. Fish screen is installed at intake point.							
All	Nitrogen: Groundwater & surface water Phosphorus: & Groundwater and surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Fertiliser is applied to land at rates and/or times that do not match optimal plant growth and/or feed budget requirements, resulting in a high risk of nutrient leaching and/or runoff.	Nutrients	Nutrient management	On cropping blocks, deep soil N tests are completed to determine plant available mineralised N in soil. Soil testing is completed annually on particular crop paddocks. This regime ensures that each paddock is tested every 3 to 5 years. Records are kept, to identify if paddocks are increasing, decreasing or maintaining Olsen P and other nutrient levels. Herbage tests are completed on specific crops prior to fertiliser applications to help determine nutrient requirements.	-	Catchment	Existing	N/A	30 May 20XX.	Ongoing from	Evidence: Soil test results and herbage test results.
All	Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Fertiliser is applied to land at rates and/or times that do not match optimal plant growth and/or feed budget requirements, resulting in a high risk of nutrient leaching and/or runoff.	Nutrients	Nutrient management	To best utilise nutrient applications on farm, recommendations are based on soil and herbage test results, as well as known plant specific nutrient requirement data.	-	Catchment	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Fertiliser recommendations, proof of placement records and fertiliser purchase records.
All	Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Fertiliser is applied to land at rates and/or times that do not match optimal plant growth and/or feed budget requirements, resulting in a high risk of nutrient leaching and/or runoff.	Nutrients	Nutrient management	When soil moisture monitoring (see irrigation action) is implemented (by 28 February 20XX), utilise moisture and temperature data for fertiliser applications. Fertiliser is applied to land when soil temperature is above 8°C and rising.	-	Catchment	New	N/A	28 February 20XX.	Ongoing from	Evidence: Soil temperature records and fertiliser application proof of placement records.
All	Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	Fertiliser is applied to land at rates and/or times that do not match optimal plant growth	Nutrients	Nutrient application	Phosphate and nitrogen fertilisers are not applied to land during high-risk months (May to	-	Catchment	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Time stamped proof of placement application records,

	Phosphorus: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	and/or feed budget requirements, resulting in a high risk of nutrient leaching and/or runoff.			July)leaching or , with fertiliser records kept. Fertiliser timings are based on plant growth requirements (eg, high growth periods), soil conditions (eg, not applied when waterlogged) and climatic conditions (eg, no application prior to heavy rainfall or during high winds) to reduce the risk of excess nutrient runoff.							fertiliser purchase records and fertiliser plans.
All	Nitrogen: Surface water Phosphorus: Surface water	Low risk for direct application of nutrients to water.	Nutrients	Nutrient application	All nutrients on farm are self-applied through a VICON RotaFlow ROM, which utilises TrimFlow for boundary spreading to minimise the risk of uneven fertiliser applications and fertiliser being applied over waterways.	-	Catchment	Existing	N/A	30 July 20XX	Ongoing from	Evidence: GPS proof of nutrient placement records, as well as machine calibration records.
C	Nitrogen: Surface water Phosphorus: Surface water	Fertiliser losses from storage facilities resulting in low risk of runoff to freshwater.	Nutrients	Nutrient storage and loading	Fertiliser is stored in a bunded shed, with a concrete floor. Located in yard area away from any waterways.	-	Catchment	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Visual inspection.
A, B & C	Sediment Phosphorus: Surface water Pathogen: Surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	High sediment and nutrient runoff risk to waterbodies from cultivated paddocks, especially on rolling heavy soils.	Land and soil	Cultivation	Direct drilling and minimum tillage are the predominant cultivation techniques used on farm to minimise the risk of soil erosion and nutrient run-off. Full cultivation is only used when absolutely necessary.	-	Supplementary	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Photos, records of when, where and what type of cultivation was used on farm. If full cultivation used, reasons why.
A, B & C	Sediment Phosphorus: Surface water Pathogen: Surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	High sediment and nutrient runoff risk to waterbodies from cultivated paddocks, especially on rolling heavy soils.	Land and soil	Cultivation	When cultivation is undertaken on farm, the contour of the sloping ground is followed to minimise the potential for soil erosion and nutrient losses.	-	Supplementary	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Records of cultivation, timing, paddocks and GPS if available.
B, C & D	Sediment Phosphorus: Groundwater & surface water	Medium sediment and nutrient runoff risk to waterways as a result of soil disturbance, including	Land and soil	Pasture and grazing	Reduce the risk of sediment runoff by leaving high residual grazing levels on land steeper than 10 degrees. Cattle are not grazed on	-	Supplementary	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Photographic records and stock grazing rotation records.

	Nitrogen Groundwater & surface water Pathogen: Groundwater & surface water Impact on site(s) significant to tangata whenua Impact on species significant to tangata whenua	compaction, soil pugging and bare land.		managem ent	land steeper than 10 degrees during times when soil moisture volumes are high.							
A, B & C	Sediment Phosphorus: Groundwater & surface water Nitrogen: Groundwater & surface water Pathogen: Groundwater & surface water	Poor site selection can lead to a medium risk of sediment and/or nutrient runoff to waterbodies from paddocks during crop establishment, grazing and post-grazing.	Intensiv e winter grazing	Site selection	Intensive winter grazing sites are selected based on a number of environmental risk factors, including paddock topography, proximity to waterways, and soil susceptibility to damage at grazing. Management practices considered include paddock and cropping history, and ability to irrigate. Site selection and contributing risk factors will be identified annually in the IWG plan as part of consent conditions.	4	Regulator y	Existin g	No	30 July 20XX	Ongoing from	Evidence: Paddock selection criteria checklist, intensive winter grazing paddock history and maps of intensive winter grazing paddocks.
A, B & C	Sediment Phosphorus: – Groundwater & surface water Nitrogen: Groundwater & surface water Pathogen: Groundwater & surface water	Intensive grazing of winter crops increases soil damage/degradation risk, including soil pugging and compaction. This can lead to a medium risk of sediment and/or nutrient runoff to waterbodies from paddocks during crop establishment.	Intensiv e winter grazing	Site selection	During preparation of paddocks for crop establishment, cropped areas have adequate nutrient and sediment buffer zones along drains (minimum 5 m on flats, greater than 10 m on rolling), near critical source areas and tops of gullies to minimise risk of sediment and nutrient runoff to waterways.	-	Regulator y	Existin g	No	30 July 20XX	Ongoing from	Evidence: Photographs of setback buffer zones and visual inspection during audit of crop paddocks.
B & C	Sediment Pathogen: Groundwater & surface water Phosphorus: Groundwater & surface water Nitrogen: Groundwater & surface water	Intensive grazing of winter crops increases soil damage/degradation risk, including soil pugging and compaction. Intensive winter grazing has a high risk of sediment, pathogen and nutrient losses to waterbodies.	Intensiv e winter grazing	Grazing managem ent	Winter crops on sloped land are grazed along the contour, with breaks starting at top of slopes and moving downwards each day, reducing the likelihood of sediment runoff through buffer zones into potentially sensitive areas. To reduce the risk of high stock concentrations and urine patches, break feeding areas are sufficiently	-	Regulator y	Existin g	No	30 July 20XX	Ongoing from	Evidence: Intensive winter grazing management plan and photos of grazing.

					sized, with back fencing used where possible, and supplementary feed is spaced appropriately.							
B & C	Sediment Pathogen: Groundwater & surface water Phosphorus: Groundwater & surface water Nitrogen: Groundwater & surface water	Intensive grazing of winter crops increases soil damage/degradation risk, including soil pugging and compaction. Intensive winter grazing has a high risk of sediment, pathogen and nutrient losses to waterbodies.	Intensive winter grazing	Grazing management	To minimise soil disturbance and crop damage, During periods of continued wet weather, stock are moved from break fenced crops to pasture in neighbouring paddocks. Known wetter areas are also grazed according to climatic conditions.	-	Regulatory	Existing	No	30 July 20XX	Ongoing from	Evidence: Maps of cropped paddocks and proximity of pastoral paddocks, and intensive winter grazing management plan, grazing records and photos.
B & C	Sediment Phosphorus: Groundwater & surface water Nitrogen: Groundwater & surface water Pathogen: Groundwater & surface water	High risk of sediment, pathogen and nutrient losses and/or runoff into surrounding critical source areas and/or waterways.	Intensive winter grazing	Post grazing management	Minimise the amount of time paddocks are fallow after grazing and prior to replanting. Ensure the intensive winter grazing management plan for the property contains a section detailing post grazing/harvest management options. Update annually for different crop types to ensure that paddocks are replanted within a timely manner.	-	Regulatory	New	No	30 July 20XX	Ongoing	Evidence: Review of intensive winter grazing management plan to ensure correct crops on farm are identified and crop cycle time frames (planting - grazing) are accurate and realistic for ensuring fallow paddocks are replanted as soon as practicable.
B & C	Sediment Phosphorus: Groundwater & surface water Nitrogen: Groundwater & surface water Pathogen: Groundwater & surface water	High risk of sediment, pathogen and nutrient losses and/or runoff into surrounding critical source areas and/or waterways.	Intensive winter grazing	Post grazing management	Dependant on the timing of when a crop has been harvested or grazed and climatic conditions at those times. Later autumn grazed fodder crops (April - May) are followed with a crop of forage oats to capture excess nutrients left over from animal urine and dung, and decaying plant stover. Oats actively grow to a low ground temperature and will utilise nutrients when other species cannot.	-	Regulatory	Existing	No	30 July 20XX	Ongoing from	Evidence: Records on ProductionWise of when crops planted, grazing/harvest records and drilling records of crops.
All	Sediment Impact on site(s) significant to tangata whenua Impact on area of indigenous biodiversity	CSA's not being identified and/or being poorly managed, resulting in a high risk of damage to the function and character of CSA's, including wetlands.	Waterbodies and wetlands	Critical source areas	All permanent flowing waterways on property are fenced with a minimum set back distance of 3 metres and with a berm of grass to slow any potential sediment and/or nutrient runoff.	5	Catchment	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Visual inspection of fences.

All	Sediment Impact on site(s) significant to tangata whenua Impact on area of indigenous biodiversity	CSA's not being identified and/or being poorly managed, resulting in a high risk of damage to the function and character of CSA's, including wetlands.	Waterbodies and wetlands	Critical source areas	During times when intermittent waterways are flowing, ensure that all stock are excluded from any flowing areas by either erecting permanent or temporary fencing with a minimum set back distance of 3 metres, or moving stock to another paddock.	5	Catchment	New	N/A	30 April 20XX	Completed by	Evidence: Visual inspection of newly fenced areas and areas where temporary exclusion is placed during flow. Proof of temporary exclusion measures (eg, time stamped photographs).
All	Sediment Impact on site(s) significant to tangata whenua Impact on area of indigenous biodiversity	CSA's not being identified and/or being poorly managed, resulting in a high risk of damage to the function and character of CSA's, including wetlands.	Waterbodies and wetlands	Critical source areas	Critical source areas on farm are not well identified. As part of FWFP certification process, all CSAs on farm must be identified and mapped	5	Catchment	New	N/A	30 July 20XX	Completed by	Evidence: Maps showing all identified CSAs on farm.
B	Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water Pathogen: Groundwater & surface water	The unbunded sloping nature of the silage pit leads to a low to medium risk of leachate runoff to the gully during periods of wet weather.	Point source	Silage pits and feed bunkers	Ensure that silage dry matter % when harvested is within optimal range (30-35%) to minimise risk of leachate.	-	Supplementary	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Dry matter test records from harvest.
B	Nitrogen: Groundwater & surface water Phosphorus: Groundwater & surface water Pathogen: Groundwater & surface water	The unbunded sloping nature of the silage pit leads to a low to medium risk of leachate runoff to the gully during periods of wet weather.	Point source	Silage pits and feed bunkers	Establish options for runoff capture and/or diversion. The two options used will be: 1. Build bund around entry/exit of silage pit to divert any water and/or leachate away from gully and towards pastoral areas. 2. Have sawdust pile in place that can be used if needed to absorb any leachate on land surface.	5	Catchment	New	N/A	30 September 20XX	Completed by	Evidence: Photographs of bunded silage pit and sawdust pile, as well as visual inspection of pit and gully areas.
C	Pathogen: Groundwater & surface water	Low risk of contaminant runoff into waterways/ groundwater if offal pit is not well managed.	Point source	Offal pit	Offal pit on farm is kept small (3m*3m*2m), filled in and moved every year and animals buried immediately when they are placed in the pit. The pit is located on heavier clay soils to minimise any risk of contaminant leaching, fenced off from stock and located at least 100 m from nearest waterway and drain on farm.	5	Supplementary	Existing	N/A	30 July 20XX	Ongoing from	Evidence: Offal pit locations are recorded on a map and photos are taken of the pit once it has been filled in.



Aide memoire: RMA Ministerial Statutory Functions relating to Urban and Infrastructure

Date submitted: 29 January 2024

Tracking number: BRF-4113

Security level: Policy and Privacy

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Chris BISHOP Minister Responsible for RMA Reform	For noting only
CC Hon Penny SIMMONDS Minister for the Environment	For noting only

Appendices and attachments
1. Appendix 1 – List of statutory functions and powers of the Minister for the Environment under the Resource Management Act 1991
2. Appendix 2 – Appendix 2 from BRF-4003: Proposed split between the RMA Reform and Environment portfolios

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Authors	Shane McGhie Leah Clark		
Responsible Manager	Linley Wilkinson	64 22 493 0144	✓

RMA Ministerial Statutory Functions relating to Urban and Infrastructure

Purpose

1. This aide memoire sets out the statutory functions and powers of the Minister for the Environment under the Resource Management Act 1991 (RMA) and how they relate, or may relate in some instances, to urban and infrastructure matters.

Background

The Minister for the Environment has a range of responsibilities under the RMA

2. The Minister for the Environment has a range of functions and powers under the RMA, including:
 - a. making decisions on national direction instruments¹
 - b. monitoring the effect and implementation of the RMA system (including any regulations in force under it), national policy statements, and water conservation orders²
 - c. deciding whether to call in and refer a proposal of national significance to a board of inquiry or the Environment Court for a decision
 - d. determining a range of applications in relation to statutory bodies and planning processes
 - e. monitoring the relationship between the functions, powers and duties of central government and local government
 - f. monitoring and investigating matters of environmental significance
 - g. directing a local authority to change its plan to address a resource management issue
 - h. investigating and making recommendations on the exercise or performance of local authorities' functions, powers, or duties.

¹ National direction instruments include national policy statements, national environmental standards, national planning standards and other regulations under the RMA.

² In recent years investigations have been undertaken on Otago Regional Council's freshwater management functions and Christchurch City Council's non-notification of an intensification planning instrument. In response to the Ministerial Inquiry into Land Use recommendations, a ministerial advisor and facilitator have been appointed in relation to Gisborne District Council's performance of its RMA functions.

3. The Minister of Conservation and Minister of Aquaculture have certain functions and powers under the RMA. For example, the Minister of Conservation is responsible for the New Zealand Coastal Policy Statement (NZCPS)³ and where matters relate to the coastal marine area. The Minister of Aquaculture has functions in relation to aquaculture permits, regulation-making powers and decision-making for certain authorisations in regional plans.
4. A table of RMA statutory functions with commentary on how they relate to urban and infrastructure matters are attached as Appendix 1.
5. You have agreed to the RMA Reform portfolio split between yourself Minister Simmonds as per Appendix 2 [BRF-4003 refers], noting that we understand the formal Ministerial portfolio delegations are underway.

Some RMA responsibilities involve substantive decision-making whilst others are more procedural

6. Statutory responsibilities can have impacts on the wider resource management system and impact other portfolio areas.
7. Some statutory functions and powers of the Minister for the Environment under the RMA involve substantive decision-making that direct how resources are used in practice, such as making national direction instruments. Others are procedural in nature, meaning that the responsibility is limited to how and when an RMA process is to occur, rather than the outcome of that process.
8. The Minister for the Environment also receives statutory notifications where others (eg, local authorities) have completed procedural matters required by the RMA. These do not always require a ministerial action and provide an opportunity for the Minister for the Environment to monitor how the RMA is working in practice.
9. Ministerial decisions are subject to judicial review. To help mitigate this risk, Ministry officials provide advice to the Minister for the Environment on any legal risks on a case-by-case basis, and to ensure all procedural and legal requirements are met.

Several RMA responsibilities interact with urban and infrastructure matters

10. Many RMA statutory functions and powers can directly impact matters relating to urban and infrastructure. For example, Minister Bishop's portfolio responsibility for the National Policy Statement on Urban Development 2020 (NPS-UD) and decision-making on certain RMA planning decisions on local authorities' implementation of the NPS-UD and the Medium Density Residential Standards (MDRS) (as agreed in BRF-4003).

³ RMA section 57(2).

11. Other functions and powers can have indirect impacts on urban and infrastructure matters, such as decision-making on other national direction instruments that affect urban environments.
12. There are other functions and powers that could relate to urban and infrastructure outcomes in RMA plans and consents, for example through the ability for the Minister to participate in local authority or Environment Court processes, the Streamlined Planning Process, approving Network Utility Operators as Requiring Authorities⁴, and the ability for the Minister to 'call in' a proposal of national significance.
13. While the Minister for the Environment has responsibility for the RMA, the day-to-day implementation of resource management occurs largely through local authorities, requiring authorities and applicants for consents. In practice, this means that the scope and timing of individual matters coming to the Minister are not controlled by central government. As such, the relevance to urban and infrastructure matters needs to be considered on a case-by-case basis.
14. Further information on these functions and powers are provided in Appendix 1. The functions and powers most relevant to urban and infrastructure are highlighted in blue in Appendix 1.

Te Tiriti o Waitangi/Treaty of Waitangi, Treaty Settlements and Māori rights and interests

15. The Crown has obligations relating to the matters set out in this aide memoire in relation to Te Tiriti o Waitangi/Treaty of Waitangi and Treaty settlement legislation. These include specific commitments to engage with Post-Settlement Governance Entities on matters under relationship agreements and accords, including certain actions when preparing national direction such as national policy statements.
16. In addition to Treaty settlement obligations, the functions and powers set out in this aide memoire intersect with Māori rights and interests in various ways, including (but not limited to) Māori owned land and interests in resource management processes, national direction, planning, consenting, and monitoring under the resource management system.
17. All RMA decision makers, including the Minister, must have regard to Part 2 purpose and principles of the RMA. This specifically includes Te Tiriti o Waitangi/Treaty of Waitangi and considerations relating to tangata whenua. Officials provide advice, on a case-by-case basis, tailored to the specific planning matter, including engagement and decision making.

⁴ Requiring Authorities (RAs) can be a local authority, all Ministers of the Crown, and network utility operators that are approved by the Minister for the Environment. RAs have a range of powers including the ability to designate land in district plans and acquire land under the Public Works Act 1981.

Next steps

18. Officials can provide further advice if you wish to give further consideration to the interactions between RMA statutory functions and your portfolios.
19. You may wish to meet with Minister Simmonds and other relevant Ministers to discuss the statutory functions and powers set out in this aide memoire.
20. Delegations may then need to be put in place to formalise any arrangements.
21. We welcome your feedback on this aide memoire in any form that is convenient.

Signatures



Linley Wilkinson
Manager – Urban Implementation
29 January 2024

Rt Hon Chris BISHOP
Minister Responsible for RMA Reform
Date

Appendix 1 – List of statutory functions and powers of the Minister for the Environment under the Resource Management Act 1991

* = The Minister of Conservation has certain functions and powers under the Resource Management Act 1991 (RMA), including where they relate to the coastal marine area.

The functions and powers most relevant to urban and infrastructure are highlighted in blue.

Ref	Minister for the Environment's statutory functions and powers under the RMA	Relevant RMA sections	Description of the functions and powers	Nature of the interaction with urban and infrastructure matters
Overarching responsibilities				
1	Monitoring of the effect and implementation of the RMA (including any regulations in force under it), national policy statements, national planning standards, and water conservation orders.	24(f)-(ga)	One of the overall functions of the Minister is to monitor and investigate the implementation and effect of the RMA, including any matter of environmental significance.	Possible interaction based on a case-by-case assessment How the RMA is monitored and implemented, in relation to urban and infrastructure matters, could be of interest to the Minister of those portfolios.
National direction*				
2	Decision-making on national direction instruments.	24(a)-(ba), 43-58K, 360	National direction instruments include national policy statements, national environmental standards, national planning standards and other regulations under the RMA.	Direct interaction The Minister for the Environment is responsible for the National Policy Statement on Urban Development 2020 (NPS-UD). The NPS-UD includes a suite of requirements for local authorities to provide well-functioning urban environments and sufficient development capacity. The NPS-UD is designed to improve the responsiveness and

				competitiveness of land and development markets.
<i>Decision-making on local authorities' implementation of the NPS-UD and the Medium Density Residential Standards (MDRS)</i>				
3	Decision-making on requests from specified territorial authorities⁵ for more time to complete the intensification streamlined planning process (ISPP)⁶. The RMA provides for: - the Minister for the Environment to prepare a direction for the ISPP setting additional requirements for a specified territorial authority such as reporting requirements and setting the Minister's statement of expectations. - a specified territorial authority to request the Minister for the	80L, 80M, 80D	The RMA requires specified territorial authorities to use the ISPP to notify an intensification planning instrument (IPI). This allows incorporation of the medium density residential standards (MDRS) into their district plans and gives effect to the intensification requirements in the NPS-UD.	Direct interaction This function directly impacts the timeframes for which a specified territorial authority must complete the ISPP and therefore implement the intensification requirements of the NPS-UD and MDRS.

⁵ Specified territorial authority means any of the following:

- every tier 1 territorial authority (Auckland Council, Christchurch City Council, Hamilton City Council, Hutt City Council, Kāpiti Coast District Council, Porirua City Council, Selwyn District Council, Tauranga City Council, Upper Hutt City Council, Waikato District Council, Waimakariri District Council, Waipā District Council, Wellington City Council, Western Bay of Plenty District Council).
- a tier 2 or 3 territorial authority that is required by regulations to prepare and notify an intensification plan change (currently Rotorua Lakes Council).

⁶ The ISPP is a plan change process based on the Streamlined Planning Process under the RMA with the intent to enable intensification outcomes to be achieved earlier than using an RMA Schedule 1 plan change process. Specified territorial authorities are required to use the ISPP to incorporate the MDRS into RMA plans and implement the intensification requirements in the NPS-UD.

	Environment to amend a direction.			
4	Relevant local authorities must immediately notify the Minister for the Environment if the local authority determines that there is insufficient development capacity over the short term, medium term, or long term.	NPS-UD clause 3.7	The NPS-UD requires relevant local authorities to provide sufficient development capacity. Where there is insufficient development capacity, the local authority must take actions to increase development capacity.	Direct interaction This function provides oversight for the Minister where a local authority determines an urban environment has insufficient development capacity.
5	If a local authority rejects any recommendations by the independent hearings panel (IHP) for intensification planning instruments (IPI), the Minister for the Environment becomes the final decision-maker on those rejected recommendations.	Section 101 and 105	Specified territorial authorities are required to notify IPI decisions on the IHP's recommendations by a date set out in a direction issued by the Minister for the Environment.	Direct interaction The Minister becomes the final decision-maker on any rejected recommendations. The Minister can only decide between the rejected recommendation (the IHP's recommendation) or the local authority's alternative recommendation.
6	Consideration of use of economic instruments to achieve the purpose of the RMA.	24(h), 360F	The Minister has the authority to investigate the use of economic instruments, including charges, levies, and incentives.	Possible interaction based on a case-by-case assessment The scope of economic instruments relating to growth management and urban development could impact urban and infrastructure matters.
RMA plans and consents				
Proposals of national significance				
7	Ability to 'call in' a plan/plan change and nationally significant proposals; Decisions on	140-149ZG, 37B, 42C, 139	If either a plan change or resource consent is for, or part of, a proposal of national significance the Minister can direct that the proposal be referred to either a Board of Inquiry or to the Environment Court for decisions. The Minister can make this	Possible interaction based on a case-by-case assessment

	certificates of compliance for nationally significant proposals.		direction on their own volition, or following a request from the local authority, the applicant, or a third party. A recent example is the call in of the Waimate Waste to Energy Plan.	Plan changes or resource consents related to urban and infrastructure could be a proposal of national significance. Regardless of whether or not the Minister decides to call in a matter, the Minister may still make a submission on the matter (eg, s149E(1)).
Streamlined Planning Process				
8	Streamlined Planning Process (SPP).	80B, 80C, Schedule 1, Part 5	This section of the Act allows a local authority to ask the Minister if they can use an expedited planning process for a particular change to a district or regional RMA Plan. The SPP process can only be used if the application meets one or more criteria relating to; implementation of national direction, urgency, a significant community need, or an issue that has resulted in unintended consequences: If approved for use, the SPP must be undertaken in the form directed by the Minister and may include limited notification, and no or limited hearings. The SPP process also results in reduced appeal rights.	Possible interaction based on a case-by-case assessment SPP applications could relate to urban development and/or infrastructure depending on their scope, location and outcomes, for example.
Other RMA planning and consent processes				
9	Extension of time request for a decision on a plan change.	Schedule 1, part 1, clause 10A	The Act requires decisions on changes to RMA Plans to be made no later than 2 years after the change was publicly notified. This section allows a local authority to request an extension of this time.	Possible interaction based on a case-by-case assessment This function could impact the timing (and therefore implementation) of plan changes that relate to urban and infrastructure matters.

10	Can specify a part of the region of a regional council by notice in the Gazette to be a separate airshed.	Clause 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NES-AQ)	The geographic area for an airshed extends upwards from ground level with no upper limit and includes coastal marine areas. The geographic boundary of each regional council or unitary authority defines their airshed.	Possible interaction based on a case-by-case assessment Airsheds may relate to urban environments, depending on their geographic location.
11	Approving a regional coastal plan*.	Schedule 1, part 1, clause 19	The Minister of Conservation is required to formally approve all regional coastal plans and can require the relevant regional council to make changes before approval.	Possible interaction based on a case-by-case assessment The regional coastal plan may include matters affecting urban and infrastructure matters.
12	Ability to request a change to a regional policy statement.	60, schedule 1, part 2, clause 21	All regions must at all times have a Regional Policy Statement. Any Minister of the Crown may request a change.	Possible interaction based on a case-by-case assessment The Regional Policy Statement may include matters affecting urban and infrastructure matters that may be of particular interest to the Minister of Housing and/or Infrastructure.
13	Advice to local authorities doing pre-notification consultation on a proposed policy statement or plan.	Schedule 1, part 1, clause 3, 3A	Local authorities are required to consult the Minister for the Environment, and any other Minister of the Crown who may be affected by the policy statement or plan, at the time the policy statement or plan is being prepared. The Minister has the ability through this process to make comment on a proposed plan prior to notification. The ability to comment on a proposed plan prior to public notification is a unique statutory responsibility that is limited to the Minister, affected local authorities, and tangata whenua. This can be particularly important as some provisions in a proposed plan can have	Possible interaction based on a case-by-case assessment The Minister of Housing and the Minister of Infrastructure will be affected by policy statements and plan changes relating to urban and infrastructure matters.

			immediate legal effect upon notification, so this is the only opportunity to comment prior to it having effect.	
14	Receive notification of proposed policy statement or plan; decision on whether or not to submit.	Schedule 1, part 1, clause 5, 5A, 6	Local authorities are also required to consult the Minister for the Environment, and, in the case of a regional coastal plan, the Minister of Conservation, at the time the policy statement or plan is publicly notified. The Minister(s) has the ability to make a submission.	Possible interaction based on a case-by-case assessment If the proposed change relates to urban and/or infrastructure matters, the Minister of Housing and the Minister of Infrastructure may decide to make a submission.
15	Receive notification of a policy statement, plan or plan change made operative.	Schedule 1, part 1, clause 20	Local authorities are required to advise the Minister of the date a plan change becomes fully operative.	Possible interaction based on a case-by-case assessment The policy statement, plan or plan change, may relate to urban and infrastructure matters.
16	Receive notice from local authority of intention to review consent conditions where relevant national direction applies.	130(8)	When a local authority decides to initiate a review of the conditions of a resource consent under section 128(1)(ba), the consent authority must serve notice of the review on the Minister, and the Minister may make a submission to the consent authority, and request to be heard.	Possible interaction based on a case-by-case assessment There may be very limited instances when the Minister of Housing and/or Infrastructure may want to be aware of and decide to submit on a conditions review.
Requiring and Heritage Authority Approvals, Water Conservation Referrals and Air quality exceedances				
17	Requiring Authorities—The recommendation of the approval of an applicant as a requiring authority (RA).	167	Under the RMA a local authority, all Ministers of the Crown, and network utility operators that are approved by the Minister have the ability to designate land in district plans. The Minister's role is to assess the appropriateness of an RA application to become a Requiring Authority and approve if considered appropriate. RA's apply to local authorities for designations to be included in	Possible interaction based on a case-by-case assessment Network utility operator applications to become RAs, and the designations that follow, could relate to urban and infrastructure matters. RAs have access to the Public Works Act 1981, which include land acquisition powers.

			district plans. Many designations in district plan relate to the provision of infrastructure. Recent examples of applications to become requiring authorities are City Rail Link, Channel Terminal Services (previously Refining NZ), and Queenstown Airport Corporation Limited.	
18	Receive notification of a transfer of responsibilities for designations.	180	A requiring authority is required to advise the Minister that they have transferred financial responsibility for a project or work, including the designation.	Possible interaction based on a case-by-case assessment Given that many designations relate to the provision of infrastructure, this may concern urban and infrastructure matters.
19	Heritage Protection—The recommendation of the approval of an applicant as a heritage protection authority; transfer of heritage protection order.	188; 195B, 195C	Like requiring authority approval, the Minister's role is to assess and determine Heritage Protection Authority applications.	Possible interaction based on a case-by-case assessment Heritage protection authorities and orders could relate to specific areas, projects or RMA plans that could relate to urban and infrastructure matters.
20	Water Conservation Orders—Decision-making on whether water conservation order applications should be referred to a special tribunal and deciding whether or not to recommend issuing them.	199-217	The purpose of a water conservation order (WCO) is to recognise and sustain natural state values of a specific water body. The Minister is required to either reject the application for the WCO or appoint a special tribunal to hear and report on the application. The Minister, following the special tribunal process, then has the role of either recommending the WCO to the Governor General or declining the application. If the Minister decides not to recommend the making of the order, then he or she must provide a statement to the House of Representatives, the applicant and every	Possible interaction based on a case-by-case assessment WCOs may relate to urban and infrastructure matters, depending on the scope and location of the WCO.

			person who made a submission for the reasons for his or her decision.	
21	Air Quality—Decision-making on applications to discount an air quality exceedance on the basis of exceptional circumstances.	Regulation 16A of NES-AQ	The Minister can determine that an exceedance of air quality standards for a contaminant within an airshed is an exceptional circumstance. If the Minister determines that an exceedance is exceptional, it will not count towards the maximum total exceedances for that contaminant in the Airshed.	Possible interaction based on a case-by-case assessment Air exceedances are unlikely to routinely relate to urban and infrastructure matters. However, it is possible that the cause of the air exceedance could link with an urban or infrastructure matter eg, if contamination of the air was caused by diesel generator which was repairing infrastructure or port emissions.
Ministerial intervention				
22	Ability to investigate a local authority and make recommendations on its exercise or performance and allows the Minister to take action under section 25 or 25A.	24A	The Minister has the ability to initiate an investigation into the performance of a local authority in implementing the RMA and, dependent on the outcome of the investigation, can intervene. This may include making recommendations to the local authority on its exercise or performance.	Possible interaction based on a case-by-case assessment Processes and decisions on plan making and changing, and resource consents, relating to growth management and infrastructure could impact urban and infrastructure matters.
23	Ability to appoint one or more persons (eg, independent or a central government official) to exercise or perform all or any functions, powers and duties under the RMA in place of the local authority.	25	Where the Minister finds that the local authority is not exercising or performing any of its functions, powers or duties, the Minister has the ability to appoint 1 or more persons to perform all of those functions, powers or duties in place of the local authority.	Possible interaction based on a case-by-case assessment The Minister could appoint persons to perform functions, powers and duties that are relevant to urban and infrastructure matters under the RMA.
24	Ability to direct a local authority to prepare a plan change/variation	25A	Section 31(1)(aa) requires territorial authorities to ensure that there is sufficient development capacity in respect of housing	Possible interaction based on a case-by-case assessment

	in relation to section 30 and 31 of the RMA.		and business land to meet the expected demands of the district.	This function could be used to direct local authorities to prepare a plan change/variation related to urban and/or infrastructure matters, and specifically in relation to providing sufficient development capacity.
25	Ability to direct a local authority to review whole or part of a regional or district plan.	25B	The Minister has the authority to direct a local authority to commence a review of the whole or part of a district or regional plan.	Possible interaction based on a case-by-case assessment A plan review could consider a range of matters, including urban and infrastructure.
26	The Minister may require local authorities to supply information in relation to its functions, powers or duties under the RMA.	27	The Minister has the authority to require local authorities, requiring authorities, and heritage protection authorities to supply information about the body's exercise of any functions, powers, or duties under the RMA.	Possible interaction based on a case-by-case assessment The Minister may require local authorities and/or requiring authorities to supply information in relation to urban and/or infrastructure matters.
27	Powers to intervene in a matter. This power can only be used if an issue is a "matter" as defined under s141.	141	The Minister has the authority to intervene in a matter by; making a submission, appointing a project coordinator, requiring a joint hearing, or appoint additional commissioners, if the matter relates to resource consents, and changes to RMA Plans, notices of requirement for designations or heritage orders.	Possible interaction based on a case-by-case assessment The scope of this power could relate to urban and/or infrastructure "matters" (as defined in s141).
Appointments and accreditations				
28	Ability to appoint freshwater commissioners; and set fees for freshwater hearings panels.	Schedule 1, part 4, clause 65-67; schedule 1, part 4, clause 63	The Minister must appoint a chief freshwater commissioner, may appoint freshwater commissioners, and if appointed must set the rate of salary, fees, and allowances.	Limited interaction Appointments of freshwater commissioners and setting fees for freshwater hearings

				panels are unlikely to routinely relate to urban and infrastructure matters.
29	Recommendations on (re)appointment of Environment Court judges; Chief Environment Judge; Environment Commissioner or Deputy Environment Commissioner.	249-250, 254	The Minister provides the Attorney General with recommendations on the appointment and reappointment of Environment Judges, alternate Environment Judges, Environment Commissioners, and alternate Environment Commissioners.	Limited interaction Relevant (re)appointments are unlikely to routinely relate to urban and infrastructure matters.
30	Accreditation of hearings commissioners.	39A	The Minister must approve the qualification(s) required to become accredited as a Commissioner under the RMA.	Limited interaction The accreditation of hearings commissioners is unlikely to routinely relate to urban and infrastructure matters.
Freshwater farm plans				
31	Freshwater farm plans – decision that Part 9A applies to a specific district, region or part of NZ; consultation on regulations including crop type, location and sales information on fertiliser.	s217A-217M	While not classified as ‘national direction’ under the RMA, freshwater farm plan regulations set national-level requirements in relation to RMA plans and consenting.	Limited interaction Decisions relating to freshwater farm plans are unlikely to routinely relate to urban and infrastructure matters.
Dispute resolution				
32	Mana Whakahono ā Rohe - dispute resolution.	58S	The Minister has the authority to assist in dispute resolution by appointing a Crown facilitator or directing the parties to use an alternative disputes resolution process.	Limited interaction Dispute resolution regarding Mana Whakahono ā Rohe is unlikely to routinely relate to urban and infrastructure matters.
33	The Minister responsible for a relevant national policy statement, NZCPS, a national planning standard, policy	82	If there is a dispute about whether there is an inconsistency between RMA Plans, water conservation orders, national policy statements and/or the NZ coastal policy	Possible interaction based on a case-by-case assessment

	statement, plan, or order may refer a dispute to the Environment Court for a decision resolving the matter.		statement, the Minister has the authority to refer the dispute to the Environment Court.	Referral of a dispute regarding urban-related national direction instruments (eg, the NPS-UD) could relate to urban and infrastructure matters, depending on the scope of the dispute.
Declarations and Environment Court proceedings				
34	The right to appeal decisions on RMA plans and consents.	120	The Minister may appeal a decision if they submitted on an RMA plan or consent; in relation to a coastal permit for a restricted coastal activity, the Minister of Conservation has the right of appeal.	Possible interaction based on a case-by-case assessment Appeals may relate to urban and infrastructure matters, depending on the scope of the submission.
35	Decision to become a party to proceedings before the Environment Court.	274	The Minister has the authority to decide to take part in any proceedings before the Environment Court. This could be an appeal against a resource consent or a change to an RMA Plan.	Possible interaction based on a case-by-case assessment The decision to become party to proceedings before the Environment Court could relate to urban and infrastructure matters depending on the scope of the proceedings.
36	Application for a declaration or enforcement order from the Environment Court.	310, 311, 316, 325B	There are several grounds under which a declaration can be sought, including failure of a plan to give effect to national direction, including proposed provisions of national policy statement, or when a consent condition or rule is being contravened. This power also applies to applications for an enforcement order related to a condition of a resource consent or RMA Plan rule relating to best practice for discharges.	Possible interaction based on a case-by-case assessment Seeking a declaration could relate to urban and infrastructure matters depending on the national direction instrument in question (ie, the NPS-UD), or the scope of the consent condition or rule.
Administrative and other matters				

37	Decision to make grants or loans to assist in achieving the purpose of the RMA.	26	The Minister has the authority to make grants or loans to any person assisting in the achievement of the purpose of the Act.	Limited interaction Decisions to make grants or loans is unlikely to routinely relate to urban and infrastructure matters.
38	Authorisation and responsibilities of enforcement officers*.	38	The Minister and a local authority have the authority to issue a warrant clearly stating the functions and powers that an enforcement officer is authorised to carry out. This power is generally undertaken by the local authority.	Possible interaction based on a case-by-case assessment Authorisation and responsibilities of enforcement officers may relate to urban and infrastructure activities.
39	Notice from local authorities of joint management agreement.	36B	The RMA provides for the development of joint management agreements between a local authority and an iwi authority (or other group representing hapū) that provide for the parties to jointly perform the local authority's functions in relation to a natural or physical resource in all or part of the region/district.	Limited interaction Receiving notice from local authorities that wants to make a joint management agreement is unlikely to routinely relate to urban and infrastructure matters.
40	Refund or remit rent for occupation of Crown land in the coastal marine area; royalty for extraction of sand, gravel, etc.; geothermal rentals and royalties*.	Resource Management (Transitional, Fees, Rents, and Royalties) Regulations 1991	The regulations set fees and royalties for certain activities within the coastal marine area under the RMA 1991. The transitional provisions as well as the specific fees set by these regulations have been revoked.	Limited interaction These functions are unlikely to routinely relate to urban and infrastructure matters and are functions of the Minister of Conservation.

Appendix 2 – Appendix 2 from BRF-4003: Proposed split between the RMA Reform and Environment portfolios

[Separately attached to cover email].



Meeting note: Meeting with DairyNZ – 1 February 2024

Date submitted: 31 January 2024

Tracking number: BRF-4146

Security level: Policy and Privacy

Actions sought from ministers

<i>Name and position</i>	<i>Action sought</i>
To Hon Penny SIMMONDS Minister for the Environment	Read before 1 February meeting.
Forward to Minister Hoggard Associate Minister for the Environment	Read before meeting and discuss with Minister Simmonds.

Actions for Minister's Office staff

Return the signed meeting note to the Ministry for the Environment (ministerials@mfe.govt.nz and RM.Reform@mfe.govt.nz).

Appendices and attachments

1. Talking points for your meeting with DairyNZ Meeting
2. Background information on DairyNZ BIM
3. DairyNZ BIM document

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Nicola McFaull		
Responsible Manager	Nik Andic		
General Manager	Hayden Johnston	022 153 0221	✓

Meeting with DairyNZ – 1 February 2024

Purpose

1. This meeting note provides background information and talking points for your meeting on 1 February 2024 with Jim Van der Poel, Chair of DairyNZ.
2. Talking points are attached in Appendix One.
3. Background information on the topics raised by DairyNZ is included in Appendix Two.

Context

4. DairyNZ supports the dairy industry through science, research and development, advocacy, biosecurity contributions and improvements, farm systems and resilience work. It is funded by a levy on milk solids.
5. DairyNZ has sought a meeting with you to discuss the following:
 - i. Topics outlined in DairyNZ's 2023 Briefing to the Incoming Minister which (attached as Appendix 3) was sent to you in December 2023.
 - ii. Next steps in the Government's changes to freshwater management, and matters relating to workforce improvement.
6. You will be meeting with Jim van der Poel, Chair of DairyNZ on Thursday 1 February at 10.30am
7. Jim van der Poel has farming interests in the Waikato, Southland, Canterbury and the United States. He has also served on the Boards of Fonterra and New Zealand Co-operative Dairies Ltd and was a founding board member of Dairy NZ's predecessor, Drexel.
8. Key issues that are likely to be raised in the meeting include:
 - i. Local government coordination
 - ii. Replacing the RMA
 - iii. Freshwater management enhancement
 - iv. Emissions pricing alignment
 - v. New farm technologies regulations
 - vi. Workforce improvements.

9. Appendix Two provides background information raised by Dairy NZ in each on each of these topics.

Recommendations

We recommend that you:

- a. **Note** the talking points for the meeting provided as Appendix One.
- b. **Note** the background material provided in this briefing as Appendix Two on topics to be discussed with Jim van der Poel.

Signatures



Hayden Johnston
General Manager, Natural Environment Policy
Ministry for the Environment

31 January 2024

Hon Penny Simmonds
Minister for the Environment

Date

Appendix 1: Talking points for your meeting with Jim van der Poel, Chair of DairyNZ

Reform of the RMA

1. We intend to undertake a phased approach to reforming the resource management system.
2. The repeal of the Natural and Built Environment Act and Spatial Planning Act was the first phase, completed in December 2023.
3. In the second phase, our intent is to amend the Resource Management Act 1991 (RMA) to make it easier to consent new infrastructure including renewable energy, allow farmers to farm, build more houses, and enable aquaculture and other primary industries.
4. This will include replacing the interim fast-track pathway, and we will introduce legislation for this in March.
5. We will also make targeted amendments to the RMA by late 2024.
6. The third phase of the reform will replace the current RMA with new resource management legislation based on the enjoyment of property rights, while ensuring good environmental outcomes. That work is on a longer timeframe.

Proposed new fast-track regime

7. We intend to introduce new fast-track legislation in March, which will go through a select committee process and enacted later in 2024.
8. The fast-track legislation builds on previous or existing legislation.
9. Several agencies are involved in the development of the legislation. Minister Bishop is the lead Minister.
10. The Ministry is carrying out targeted engagement with groups representing Māori, local government, infrastructure, development, and environmental interests, as well as technical experts.

Freshwater management enhancement

11. We have begun work to review and replace the National Policy Statement for Freshwater Management, which is expected to take 18 to 24 months.
12. We are committed to ensuring that New Zealand's freshwater systems are protected using a pragmatic and balanced approach which provides for and recognises the interests of all water users.
13. I will work to provide farmers and landowners the tools they need to grow the economy, while still achieving environmental outcomes.

14. We want to ensure that the freshwater farm plan system is practical and fit for purpose.
15. We have seen some great leadership from industry, councils and catchment groups in encouraging the development of freshwater farm plan which support strong freshwater outcomes.
16. Over 7,000 of ~10,500+ dairy supply members nationally have a farm environment plan (FEP). MfE has been engaging with all major dairy companies over the past 18 months to help align company specific farm environment plans with freshwater farm plan requirements.
17. We are working with industry and councils to ensure we use the current system to streamline farm planning data – so farmers submit related data fewer times and councils can monitor local freshwater outcomes more efficiently.
18. I expect the NPS-FM review will include opportunities for engagement on the five focus areas raised in the DairyNZ BIM. These are: local government coordination; replacing the RMA; freshwater management enhancement; emissions pricing alignment; new farm technologies regulations and workforce improvements
19. With regard to the first 'focus area', we have already extended the deadline for councils to notify draft freshwater plans by three years, until 2027. This will avoid unnecessary duplication and compliance costs.
20. I am aware of councils applying the Te Mana o Te Wai hierarchy to consent assessments. The Government will clarify that councils should not be requiring individual resource consent applicants to demonstrate that their proposed activity adheres to the Te Mana o Te Wai hierarchy.
21. I am interested in your thoughts as the Te Mana o Te Wai hierarchy is reviewed. What do you think are the key impacts on primary production and regional economies that should be considered?
22. I am also interested in what you think about how the E.coli standard is applied. This is currently under review.
23. I am also interested in hearing more about your priorities, and the areas where you think we could make improvements to the NPS-FM. What are your thoughts on how policy can enable farmers and the regional sector to improve freshwater outcomes? How can national policy better support freshwater management at the catchment scale?

National Policy Statement on Biodiversity Amendments

24. I will also be working closely with the Associate Minister for the Environment to cease implementation of SNAs under the National Policy Statement for

Indigenous Biodiversity (NPSIB) and to conduct a review of that policy to ensure pragmatic protection of New Zealand's biodiversity for future generations.

Emissions pricing alignment

25. The Government is committed to “keeping agriculture out of the ETS (Emissions Trading Scheme) but implementing a fair and sustainable pricing system for on-farm agricultural emissions by 2030 at the latest”.
26. Cabinet has not yet made decisions on what a pricing system would look like, but I am interested to hear about how you see emissions pricing being used as a tool for incentivising emissions reductions.
27. The Government is focused on delivering smarter rules for the future, super-charging the rural economy, reducing red tape facing farmers, and exploring a connected and aligned environmental regulation approach. This is highlighted in the Government's coalition agreements and the National Party manifesto.
28. The Government's coalition agreements commit to “maintain a split-gas approach to methane and carbon dioxide through to 2050”, “adopt standardised farm level reporting” and “reduce farming regulation”.
29. Currently decisions have not been made on what a ‘standardised farm level reporting’ system and timeframes will look like.
30. The Minister of Agriculture, Todd McClay and Minister of Climate Change, Simon Watts are working on this. (For Minister Simmonds information as background – a reporting and pricing system is being scoped by both Ministers.

New farm technologies for emissions reduction

31. The Government is also committed to “incentivising the uptake of emissions reduction technologies and giving farmers the tools and technologies they need to reduce on-farm emissions. This includes streamlining the approvals process and regulatory framework for emissions reduction technologies.”
32. I am also interested in learning how we can best partner with the primary sector to meet the climate change challenge. What areas do you think we could make improvements to streamline the regulatory framework to facilitate the adoption of technologies?

Workforce improvements

33. While I agree with you that allowing all workers to access formal training will help enhance productivity. Minister Hoggard, the Associate Minister for Agriculture for workplace skills, and I are interested in your views on how to prioritise funding in a constrained fiscal environment.

34. I would also be interested in your views on how to take account of industry voice into the vocational education system irrespective of whether Workforce Development Councils are retained.
35. I am also interested in how I can work with DairyNZ, and employers to increase the number of people undertaking formal training and would like to hear more about what DairyNZ is doing to lift participation rates.

Appendix 2: Dairy NZ BIM - Background Information

1. This section provides information on topics that are likely to be discussed at Minister Simmonds meeting with DairyNZ Chair, Jim van der Poel on 1 February 2024 (TBC).
2. These topics were raised in DairyNZ's BIM sent to the Minister in December 2023.

Local government coordination

3. The DairyNZ briefing sets out farmers' frustrations with regulations that can stem from the disconnect between national direction and local government implementation.
4. They propose clearer roles and responsibilities to enable local government to align with national targets, goals and objectives.

Replacing the RMA

5. DairyNZ sets out the importance to farming of the resource management system and the impact this legislation has on farming operations – farm practices, freshwater access, and critical infrastructure development.
6. It welcomes the repeal of the NBEA and hopes the following issues will be resolved in the replacement legislation: long-term planning for specific activities for consents to encourage long-term investment; a clear planning framework within the legislation; and transparency and guidance on environmental limit determination.

Freshwater management enhancement

7. The DairyNZ BIM called for a review of the NPS-FM (2020), including consideration of a diverse range of stakeholder perspectives. Many 'focus areas' identified in the BIM align with coalition agreements and government commitments.
8. The 'focus areas' for a review of the NPS-FM identified in the BIM are:
 - a. Reviewing the 2024 deadline for councils to implement the NPS-FM, due to concerns that this deadline would result in a rushed planning process and poor outcomes.
 - b. The achievability of, and scientific justification behind, the National Objectives Framework (NOF) and bottom lines.
 - c. Revisiting the Te Mana o Te Wai hierarchy to consider the impact it has on primary production, regional economies and communities.

- d. Achieving a greater focus on environmental outcomes by amending policies that require numerical limits to be set for freshwater which are difficult to measure.
 - e. Review of how the E. coli standard is applied.
9. While the NPS-FM is reviewed, DairyNZ request that you work with farmers and catchment groups to manage water quality at the catchment scale.

Emissions pricing alignment

10. The DairyNZ briefing to the incoming Minister (the BIM) notes commitment to reducing human-induced contributions to climate change. It highlights that many New Zealand dairy farmers see policy as having a lack of regard for New Zealand's position as one of the world's most carbon efficient dairy industries. In particular, they see the current emissions targets as overly ambitious and support a review of current methane reduction targets.
11. While DairyNZ's BIM sees emissions pricing as a critical tool for emissions reductions, they would like to see pricing reflect the contributions farming practices and carbon sequestration make on farming. They would also support the use of any revenue generated to go towards research on, and development of, methane reduction technologies.
12. The National/Act coalition agreement, agrees to "maintain a split-gas approach to methane and carbon dioxide through to 2050 and review the methane science and targets in 2024 for consistency with no additional warming from agricultural methane emissions."
13. New Zealand's domestic targets are:
- i. Net zero emissions of all GHGs other than biogenic methane by 2050
 - ii. 10% in biogenic methane emissions below 2017 levels by 2030; and 24-47% in biogenic methane emissions below 2017 levels by 2050.

New farm technologies regulations

14. The DairyNZ BIM recommends a comprehensive review of existing regulations for the early adoption of new farm technologies. It highlights the need for a forward-thinking, flexible regulatory approach to facilitate the swift adoption of emerging technologies.
15. The BIM also highlights that there is a focus on encouraging the deployment of methane-reducing technologies within the dairy industry to address climate change and reduce greenhouse gas emissions. Therefore, the regulatory framework to support the swift uptake of these technologies is vital.

16. The points raised in the BIM largely align with coalition agreements and the National Party's manifesto at a high level.
17. The Government's coalition agreements commit to "incentivising the uptake of emissions reduction mitigations".
18. While Government has not yet made specific decisions on technology regulations, DairyNZ recommend proactive engagement in revising regulations to accommodate the early adoption of innovative technologies on farms.

Workforce improvements

19. There are an estimated 55,000 people working in the dairy sector. The majority of them are in dairy farming (just over 39,500) with the rest beyond the farm gate in dairy processing. The workforce comprises of just under 10% migrant workers. Dairy farm managers, dairy cattle farmers and managers, and dairy herd managers are eligible to come into the country through the 'Green List', which facilitates a fast-tracked process to residency in New Zealand.
20. DairyNZ are recommending that migrant employees have access to vocational education at domestic fee levels to support productivity growth in farm businesses (e.g. pastoral management). They are also recommending the retention of Workforce Development Councils as they provide an industry voice into the education system and Dairy NZ believes it would be too early to determine their effectiveness.
21. As the majority of trainees in dairy farming obtain formal training via the Primary ITO, at the meeting, DairyNZ may also highlight the importance of the Industry Training Organisations and the funding needs of these organisations.

Briefing: 100-day plan: Ceasing new Significant Natural Areas and review of their operation

Date submitted: 31 January 2024

Tracking number: BRF-4066

Security level: Policy and Privacy

MfE priority: Urgent

Actions sought from Ministers		
<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Andrew HOGGARD Associate Minister for the Environment	Agree to cease councils' implementation of new SNAs by amending the NPSIB via an RMA amendment bill. Direct officials to draft a Cabinet paper to confirm policy decisions for the bill. Agree to a process and scope for reviewing the operation of SNAs.	5 February 2024
cc Hon Penny SIMMONDS Minister for the Environment	Note the content of this briefing.	
cc Hon Chris BISHOP Minister Responsible for RMA Reform	Note the content of this briefing.	

Actions for Minister's office staff
If agreed forward to Hon Tama Potaka, Minister of Conservation Hon Todd McClay, Minister for Agriculture Return the signed briefing to the Ministry for the Environment (ministerials@mfe.govt.nz).

Appendices and attachments
Appendix 1: Detailed description of options to cease the implementation of new SNAs.

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Cathy McNab		
Responsible Manager	Jo Burton		
General Manager	Hayden Johnston	0221530221	✓

Minister's comments

100-day plan: Ceasing new Significant Natural Areas and review of their operation

Key messages

1. This paper follows on from a paper late last year on how to action the Government's 100-day plan commitment to "Begin to cease implementation of new Significant Natural Areas (SNAs) and seek advice on operation of the areas" [BRF 3970 refers]. This paper provides more detailed options for your decision.
2. We propose that cessation of the implementation of new SNAs under the National Policy Statement for Indigenous Biodiversity (NPSIB) be achieved by amending the NPSIB to suspend for a period of time the requirements on councils in:
 - a. Clause 3.8 to commence assessments of their districts for areas that qualify as SNAs
 - b. Clause 3.8(6) requiring councils to assess any area likely to be an SNA that becomes evident through other processes such as a resource consent application
 - c. Clauses 3.9, 4.1(1) and 4.2 identifying and notifying SNAs in district plans.
3. The most expeditious approach to achieving these changes would be through primary legislation. Cabinet recently noted that an additional phase two RMA amendment bill would be developed and concluded by the end of the year to pick up changes not included in the fast-track legislation. That bill is likely to focus on changes to other national direction, so it would make sense to also incorporate changes to the NPSIB.
4. For achieving the second limb of the Government's commitment (reviewing the operation of SNAs), we propose that a review be led by officials, and commence with targeted expert and Treaty partner engagement.
5. We seek your direction on the focus and scope of the review. We can advise on the appropriate process for making changes to the NPSIB based on the review findings at a later date.

Recommendations

We recommend that you:

1. **Agree** to cease implementation of new SNAs by amending the NPSIB by:

- i. Suspending, for three years from the date the NPSIB came into force, the requirement for councils to assess their districts for areas that qualify as SNAs and include those SNAs in their plans (refer NPSIB clauses 3.8-3.9, and 4.1(1) and 4.2 (preferred))

Yes | No

OR

- ii. Extending the existing timeframe for councils to include SNAs in plans by an additional three years (from 5 years to 8 years) (refer NPSIB clause 4.2)

Yes | No

2. **Note** that the proposed changes to the NPSIB will not change Resource Management Act 1991 (RMA) requirements for councils to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna, nor council processes initiated before the NPSIB

Yes | No

3. **Note** that councils would still be required to give effect to NPSIB management approaches within 5 years for existing SNAs in plans

Yes | No

4. **Agree** to progress agreed changes to the NPSIB via the bill to progress other phase two RMA amendments (additional to the fast-track legislation) [CAB-24-MIN-0008 refers]

Yes | No

5. **Note** that to meet the timing of the bill, Cabinet policy decisions on the NPSIB will be required as soon as possible

Yes | No

6. **Direct** officials to draft a Cabinet paper reflecting your decisions on changes to the NPSIB for your approval by 8 February

Yes | No

7. **Direct** officials to initiate scoping of an official-led review of the operation of SNAs under the NPSIB to commence in the second quarter 2024

Yes | No

8. **Discuss** with officials the scope and process for the review of the operation of SNAs

Yes | No

9. **Note** that engagement with iwi/Māori about the proposed changes to the NPSIB via primary legislation and the review will be needed because:

- a. there was significant interest and involvement of iwi/Māori in the development of the NPSIB
- b. engagement is required with Post Settlement Governance Entities by Treaty settlement legislation and related relationship agreements.

Yes | No

Signatures



Hayden Johnston
General Manager
Natural Environment Policy

31 January 2024

Hon Andrew HOGGARD
Associate Minister for the Environment

Date

100-day plan: Ceasing new Significant Natural Areas and review of their operation

Purpose

1. This briefing follows from BRF-3970 and seeks:
 - a. agreement to cease the implementation of new Significant Natural Areas (SNAs) under the National Policy Statement for Indigenous Biodiversity (NPSIB) via a legislative amendment
 - b. agreement for officials to initiate a review of the operation of SNAs and your direction on the focus and scope for the review.

Background

2. Councils are at different stages, and have instituted a range of approaches, to fulfil their RMA obligations to manage and protect biodiversity, including identifying SNAs (or similarly named protected areas) in their plans.
3. The NPSIB came into force in August 2023. It codifies the requirements of the RMA, providing a consistent framework and criteria for councils to assess and include SNAs within their plans, manage SNAs, and specifies timeframes for those actions.
4. The NPSIB SNA identification criteria are based on practices of a number of regional councils. Around two-thirds of councils have some SNAs included in district plans and about half have moderately complete or complete lists of SNAs included. This includes urban, semi-urban and rural councils (most recently Timaru and Waimakariri).
5. Cabinet has directed officials to “provide advice by 31 January on options to review the operation of Significant Natural Areas, including options to cease the implementation of new Significant Natural Areas” [CAB-23-MIN-0468 refers].
6. A briefing to Minister Simmonds in December 2023, copied to you [BRF-3970 refers], provided an overview of the NPSIB and how it manages SNAs, as well as high-level options for ceasing the implementation of new SNAs under the NPSIB.

Ceasing implementation of new SNAs under the NPSIB

Option One - suspend commencement of identification of new SNAs (preferred)

6. We think the most effective way to cease implementation of new SNAs under the NPSIB is to amend the NPSIB obligations on councils that relate to the identification of SNAs. This would allow for a period of time to review the NPSIB and make necessary changes.
7. Specifically, we propose that NPSIB provisions for local authorities to assess areas that qualify as SNAs and include them in their plans (refer NPSIB clauses 3.8-3.9 and 4.1(1) and 4.2) be suspended for three years from the date of NPSIB commencement (moving from August 2023 to August 2026).
8. Under this option, the amended NPSIB would direct councils not to undertake the assessment process or notify any SNAs in their plans until August 2026. This ensures that from the date of the change, no new SNAs are assessed or notified in plans under NPSIB direction.
9. This option would postpone the requirement for the use of the NPSIB principles and ecological significance criteria set for identifying and assessing areas, and may have consequential effect on other provisions, which can be considered as part of drafting.
10. It would not stop councils' existing processes initiated before the NPSIB came into force. Further, councils could continue to use NPSIB processes and criteria to undertake their RMA functions in accordance with requirements in their plans. The change will not act retrospectively so transitional provisions may be needed at drafting to cover any council plans notified to give effect to the NPSIB after the NPSIB commencement, but before an option one change was put into effect.
11. For existing SNAs/habitats included in plans, councils would still need to give effect (within 5 years) to the NPSIB management approaches (refer clauses 3.10 to 3.17). Existing activities in SNAs (such as farming) would be able to continue as long as they do not increase adverse effects on the SNA. New activities, such as tracks and small sheds, would be allowed if they have minor adverse effects.

Option Two - extend timeframes for councils to include SNAs in plans

12. An alternative option is to extend the timeframes for councils to include SNAs in plans by a fixed period of time (refer NPSIB clause 4.2).
13. Under this option the five-year timeframe for councils to include areas that qualify as SNAs in a notified plan would be extended to eight years.

14. In contrast to option one, option two would not stop councils undertaking NPSIB assessments for SNAs and including them in plans, but would enable councils to deprioritise such activity until the national direction settled.
15. More detailed information on the drafting and effect of the options is provided in **Appendix 1**.

Process for amending the NPSIB

16. Amendments to the NPSIB would be most expeditiously progressed via a suitable legislative vehicle, rather than the process set out for amending national direction under the RMA [BRF-3970 refers].
17. On 23 January 2024 Cabinet noted the intention to introduce a bill to progress other phase two RMA amendments to be passed by the end 2024 in addition to the fast-track legislation [CAB-24-MIN-0008 refers].
18. Changes to other national direction instruments are likely to be included in this additional bill, and we recommend using this bill process to make the necessary amendments to the NPSIB.
19. There is precedent for amending national direction via primary legislation (refer RMA 1991 s77S). 9(2)(h) [REDACTED] There is also potential for public criticism as the approach is unorthodox, circumventing RMA processes for changing national direction [BRF 3970 refers]. This may be mitigated, to some extent, by engaging key stakeholders prior to the introduction of legislation.
20. The timing is tight for including amendments in the bill. We will therefore need decisions from you by 5 February to inform drafting of a Cabinet paper to obtain agreement to your changes for inclusion in the bill.

Review of the operation of SNAs

Approach to the Review

21. There are several approaches that could be used to review the operation of SNAs. A review could be undertaken by:
 - a. commissioning an experienced professional (legal or other expertise)
 - b. establishing a technical advisory group
 - c. an officials-led process.
22. We propose that a review of the operation of SNAs under the NPSIB be led by officials. We envisage the review would commence in the second quarter 2024.

23. The proposed approach is considered efficient, in that expertise can be engaged as and when needed. Officials envisage following a process involving:
- a. working with councils to review the operation of existing SNAs
 - b. targeted technical expert, stakeholder and Māori/iwi/hāpu engagement to identify key issues and potential solutions for improving operation of SNAs.
24. We can advise you on the appropriate process for making changes to the NPSIB based on the review findings at a later date. Potentially a standard Minister-led RMA process [BRF-3970 refers] could be used to effect any changes. That regulatory process could take one to two years, depending on the scale and scope of changes arising from the review.

Scope of review

25. We recommend that you discuss and confirm the scope of the review with officials.
26. The review into the operation of SNAs could potentially investigate:
- a. SNA identification criteria, such as ecological significance criteria – officials are aware of criticism from some groups that some councils' and the NPSIB's criteria (which was informed by some councils' criteria) are not well-focused and may result in capture of land of less significant biodiversity value. The review could inform better focused NPSIB criteria for councils
 - b. Rules pertaining to land use for land identified as an SNA – e.g. to review land use limitations imposed by some councils. The review could inform greater obligation for councils to impose proportionate and clear land use limitations and exceptions
 - c. Processes for engaging with landowners – e.g. to address concerns that landowners do not have resources to respond to council instigated processes. Principles to improve council engagement with landowners are included in the NPSIB along with the right for landowners to request a site visit if they have concerns about the values of an SNA on their land. During the development of the NPSIB, changes were made to improve landowners' ability to respond to council instigated processes to identify SNAs. The review could review these processes and what has worked well to date.

Te Tiriti analysis

27. Māori have a significant interest in indigenous biodiversity. The NPSIB requires SNAs to be identified on all land tenures including Māori land. For Māori land it enables local approaches to be developed between councils and Māori which both protect SNAs and enable development.

28. Many iwi/Māori submitting on the NPSIB supported the purpose of the NPSIB due to its alignment with a focus on the health of the environment (e.g. Te Arawa Lakes Trust). Many iwi/Māori, however, were opposed to the way the NPSIB carried out this purpose, particularly because of the identification of SNAs on their land without their agreement (e.g. Taitokerau Māori Forests Inc, Tuwharetoa Māori Trust Board). During the development of the NPSIB, some Māori sought greater engagement or involvement in its design (e.g. Raukawa Settlement Trust, Te Runanga o Ngāi Tahu).
29. Some Treaty settlement deeds, legislation and accords reinforce this engagement expectation, requiring specific requirements to be met. For example, the relationship agreement between the Ministry for the Environment and Ngāti Tūwharetoa required by the Ngāti Tūwharetoa Claims Settlement Act 2018 requires the Ministry to engage in good faith about any policy that will directly impact the area of Tūwharetoa's interest, which would include any changes to the NPSIB. Some settlements have specific engagement requirements when national direction is being amended (e.g. Te Arawa Lakes Deed of Settlement and Ngā Hapū o Ngāti Porou Act).
30. Accordingly, it is highly likely that Māori will wish to engage over changes that would cease implementation of new SNAs, and on the review of the operation of SNAs. Officials can provide further advice about iwi/Māori groups with whom engagement is required and those who would have a particular interest in changes to the NPSIB.

Consultation and engagement

31. Early engagement with councils, key stakeholders and Treaty partners is recommended to help develop the detailed scope of the review.
32. It is preferable that engagement be coordinated with other national direction being addressed at the same time. This would help to manage the cumulative load on those being engaged with.

Risks and mitigations

33. As previously noted [BRF-3970 refers], Ministers do not have power to direct councils to cease carrying out RMA requirements and functions for protecting biodiversity, or to direct councils not to implement a national policy statement.
34. Many councils have already included SNAs, or similar, in their plans and policy statements under RMA provisions.
35. Local government bodies have also raised concerns that recent changes to district plans stemming from new national guidance have contributed to "planning fatigue".

36. These risks are intended to be mitigated by:

- a. assessing existing council SNA processes as part of the review to ensure they are producing desired outcomes, to identify any changes needed to national direction
- b. aligning, where possible, consultation with other national direction processes and maintaining processes to keep councils well informed.

[Legally privileged] Legal issues

37. ^{9(2)(h)}

38.

39.

40.

41.

Financial, regulatory and legislative implications

42. There are no immediate financial implications for the Government, though advice will be provided to you about the resourcing implications for the review.
43. There may be implications for local authorities for Long-Term Planning. Some councils are likely to have initiated consultation to address NPSIB requirements and may need to replan in response to a cessation of SNA requirements.

44. Delaying the implementation of SNAs under the NPSIB may have implications for the delivery of the Aotearoa New Zealand Biodiversity Strategy¹ and commitment to help halt global biodiversity loss under the Convention on Biological Diversity (to which New Zealand has been a member since 1993).

Next steps

45. The proposed next steps and indicative timing for progressing this work are outlined below.

Timeline	Description
5 February 2024	Agreement to the policy approach for beginning to cease SNAs, and the terms of a review.
8 February 2024	Draft Cabinet paper to confirm policy decisions for ceasing SNAs for the phase two RM reform bill provided for your approval.
12 February 2024	Ministerial and agency consultation commences (truncated and concurrent).
22 February 2024	Lodging papers with Cabinet Office.
28 February 2024	ENV committee.
4 March 2024	Cabinet.

¹ Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy, launched in August 2020, sets out a strategic framework for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand from 2020 to 2050.

Appendix 1: Detailed description of options to cease the implementation of new SNAs

Option	Indicative drafting
Option 1: Suspend the commencement of identification of new SNAs This change would introduce a future commencement date for the provisions that require territorial authorities to undertake district-wide assessments and subsequent notification of the newly qualified SNAs in plans.	There are various approaches to delivering this option and it will be determined by PCO. The initial suggestion is that new clauses are added to the NPSIB to: – remove the requirement on councils to commence the district wide SNA assessments and notification as soon as reasonably practicable (changes to clause 4.1) – direct councils to not commence the district wide SNA assessment until three years from the NPSIB commencement date (4 August 2023) (changes to clauses 3.8 and 4.2) – timing for subsequent notification in plans following any district wide assessment would be deferred (changes to clause 3.9 and 4.2) – the requirement for councils to assess any area likely to be an SNA that becomes evident through other processes such as a resource consent application would also be deferred (changes to clause 3.8(6)). To implement the change the following changes would be made: – Clause 4.1(1), ensure that councils must give effect to the national direction as soon as reasonably practicable, apart from identification, assessment, mapping and notification of SNAs which should align with changes to clause 4.2(1) – Clause 4.2(1), ensure that local authorities must assess and identify areas that qualify as SNA and publicly notify new SNAs within 8 years after the NPSIB commencement date but not prior to 3 years from that date. The current timeframes set-out within clause 4.2(1) will need to remain for other elements of subpart 2 of Part 3 – Changes to clause 3.8 may also be needed to link it to clause 4.2(1) – Clause 3.8(6) - give more time to include any area assessed as being an SNA in a notified plan change. Consequential changes may be required to other elements of the national direction including transitional provisions to cover any plan processes that give effect to the NPSIB since the NPSIB came into force but before the change is in effect.
Option 2: Extend the timeframes for councils to include SNAs in plans The intent of the changes is to extend the timeframes when local authorities give effect to the NPSIB and when plan changes must incorporate SNAs.	The components of this approach include: – extend the timeframe for including SNAs in a publicly notified plan to 8 years from the NPSIB commencement date (change to clause 4.2) – the requirement for councils to assess any area likely to be an SNA that becomes evident through other processes such as a resource consent application would also be deferred (change to clause 3.8(6)). To implement this change, the following amendments could be made to the NPSIB (noting consequential changes may also be required): – Clause 4.1(1), ensure that councils must give effect to the national direction as soon as reasonably practicable, apart from identification, assessment, mapping and notification of SNAs which should align with changes to clause 4.2(1) – Clause 4.2(1), ensure that local authorities must publicly notify new SNAs within 8 years after commencement. The current timeframes set-out within clause 4.2(1) will need to remain for other elements of subpart 2 of Part 3 – Clause 3.8(6) - give more time to include any area assessed as being an SNA in a notified plan change.



Aide memoire: Overview of Key Environmental Non-Government Organisations (ENGOS)

Date submitted: 2 February 2024

Tracking number: BRF-4162

Security level: Policy and Privacy

Actions sought from ministers

<i>Name and position</i>	<i>Action sought</i>
To Hon Penny SIMMONDS Minister for the Environment	For noting only

Appendices and attachments

1. Overview of Key ENGO Stakeholders

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Nicola McFaull		
Responsible Manager	Josh Wineera		
General Manager/s	Chloe Groser Hayden Johnston		✓

Overview of Key Environmental Non-Government Organisations

Purpose

1. This aide memoire provides information on the key ENGO stakeholder groups that engage regularly with the government on environmental issues. These ENGOs were included in BRF-4010 Briefing on Key RM Reform stakeholders.

Background

2. There are many interest groups across Aotearoa New Zealand that have a focus on the environment. These include groups with a national presence, a large membership base across New Zealand and/or deep expertise and a structure to support to this; and those with a regional or local presence, focusing on specific issues relating to their area.
3. Groups with a national presence include the following:
 - i. Environmental Defence Society (EDS)
 - ii. Forest & Bird NZ
 - iii. Fish and Game NZ
 - iv. Greenpeace
 - v. WWF
4. Fish and Game NZ has a legislated mandate and specific statutory obligations.
5. The above groups meet regularly with the Ministry and are styled as the ENGO Leadership Group. They often work closely together, and with the Ministry, as part of our engagement programme on policy development and implementation issues. Previously, the group had six-monthly meetings with Ministers of the Crown.
6. The ENGO Leadership Group has been invited to a forum to discuss the Fast-Track Consenting Act and the National Policy Statement for Freshwater Management (NPS-FM) on 9 February 2024.
7. We have provided further information about these stakeholders in Appendix One.
8. Groups with a more regional or local focus include organisations such as Fiordland Marine Guardians, The Guardians of Lake Manapouri, Monowai and Te Anau, Coromandel Watchdog, and Environment and Conservation Organisations of New Zealand (ECO).

9. The Ministry keeps these groups informed of Government priorities through regular communication channels, encouraging them to participate in policy development and implementation through consultation and engagement processes.
10. Engagement and participation by external stakeholders helps inform and strengthen policy development and implementation ensuring it is robust and workable on the ground.

Funding of ENGOs

11. Most ENGOs rely on philanthropic and community or public donations to fund their work programmes. For instance, EDS receives funding from the Tindall Foundation, the Law Foundation and Foundation North.
12. The Ministry has provided funding to ENGO groups through the following programmes.
 - i. Environment Legal Assistance Fund (ELA)
 - ii. NGO Participation in Freshwater and other resource management plans.
13. When an organisation receives funding from government departments there are strict criteria to follow including reporting against set outcomes. Funding is usually provided through a deed of contribution.
14. In providing funds MfE has a commitment to prudent use of public monies, to ensure transparency, impartiality and effectiveness.
15. The ELA is administered by the Ministry. Its purpose is to help not-for-profit groups advocating for matters of environmental public interest pay for legal and/or expert advice to support court cases on issues of environmental significance. This includes first instance hearings where there are no substantive appeal rights. Funding enables applicants to participate more effectively and efficiently in matters or issues affecting, or processes regulating, the environment. The fund has a total annual budget of \$600,000 with a maximum of \$50,000 per group for any one case with funding decided by an independent panel.
16. A list of all groups who have been funded is available on the Ministry for the Environment website. Groups that have been approved for funding over the last year have included Valley Residents Against Gravel Extraction; EDS; Kiwis Against Seabed Mining and Te Runanga o Ngati Whatua.
17. Funding has been made available by the Ministry in a pilot programme to support ENGO participation in plan-making to develop high-quality and more balanced resource management plans.
18. The pilot initiative was to provide \$2.4 million over three years to participating NGOS starting with Freshwater plans under the RMA. It was to move eventually

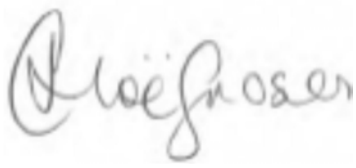
to the now repealed Regional Spatial Strategies (under the proposed Spatial Planning Act—SPA) and Natural and Built Environment plans (under the proposed Natural and Built Environment Act—NBA).

19. The purpose of the funding was to enable ENGOs to engage when the plans were in their early stage, so any concerns could be resolved. The aim was for this to help avoid more costly processes at a later stage.
20. EDS and Forest & Bird each received \$200,000 in the 23/24 year (up to a total of \$600,000 for each recipient over the three years of the Deeds). Each organisation also co-funded their work with EDS committing \$240,000 and Forest & Bird \$900,000 over three years.
21. Funding for the 24/25 year is now under review given the new direction by Government on the resource management reforms.
22. EDS has also been contracted to assist in reviewing New Zealand's ocean management system. It will prepare working papers on the key system issues of marine spatial planning and marine protection, delivering a pathway to positive change in oceans management. This independent research will help address the Government's manifesto commitments on integrated marine management and marine protection and will inform potential future oceans management reform.
23. Funding for this project is for \$155,000 over three years with payment tied to phased deliverables.
24. Information is being sent to your office separately to provide an overview of nine ENGO groups funded by the Ministry over the last four years. This includes the above ENGO groups.

Next steps

25. This Aide Memoire gives you an overview of the key ENGO national groups that the Ministry regularly engages with as part of policy development and implementation.
26. The Minister for Climate Change is meeting with EDS on 8 February.
27. The Minister Responsible for RMA Reform is meeting with EDS on 27 March 2024 and with Fish & Game on 28 March 2024.
28. We recommend you also meet with the ENGOs either as a group or individually in the coming months. The information in Appendix One will be useful for those meetings. We can also provide a more in-depth meeting note for each meeting.

Signatures



Chloe Groser
General Manager – Communications and
Engagement
2 February 2024



Hayden Johnston
General Manager – Natural Environment
Policy
2 February 2024

Hon Penny SIMMONDS
Minister for the Environment
Date

Appendix One: Overview of Key Environmental Non-Government Organisations

1. There are many interest groups in the community that are focused on the environment. These span from small community groups focused on environmental issues in their area through to groups that operate on a national level, with some having many members in branches across New Zealand.
2. The Ministry for the Environment regularly engages with a group of key ENGOs that have a high interest in the work we do. These are:
 - a. Environmental Defence Society
 - b. Forest & Bird
 - c. NZ Fish and Game
 - d. Greenpeace
 - e. World Wildlife Fund
3. Find below a profile of each of these groups.

Environmental Defence Society

Name of	Environmental Defence Society (EDS)
Key EDS contacts	Gary Taylor – Chairman and Chief Executive Greg Severinson – RM Reform director Raewyn Peart – Policy Director
Organisation background, structure and funding	Environmental Defence Society (EDS) is an influential ENGO with a strong policy and research base. They are committed to improving environmental outcomes for New Zealand. EDS seeks to protect and restore New Zealand's outstanding landscapes, freshwater systems, oceans and indigenous biodiversity. They advocate to strengthen the law and support good environmental management practices. EDS was established in 1971 to bring together the disciplines of science, law and planning to advocate for the environment. Its activities are overseen by a Board of directors who are professionals in their own fields. The

	organisation has a small core who undertake much of the day-to-day work. A wider network of resource management professionals is drawn on for assistance on a case-by-case basis. EDS has a layered membership structure with an option for those who work professionally in the resource management field. It primarily receives funding from donations, funding for work done by government, and a small proportion of revenue is generated by membership fees.
Key areas of focus in relation to the Environment portfolio	<i>RM Reform</i> EDS released its Briefing for Incoming Ministers of RM reform and the Environment in December 2023. The organisation has a strong interest in the resource management reform process. In 2019, EDS made a good case for the reform of the resource management producing a series of reports. Raewyn Peart, its policy director was a member of the RM Reform Review Panel. EDS was party to a critical decision of the Supreme Court in Environmental Defence Society Inc v New Zealand King Salmon Company Limited ("King Salmon") that reinforced the hierarchy of planning documents and that the definition of sustainable management must be read as an integrated whole. EDS is currently in litigation involving the NES-Plantation Forestry saying it fails to protect the coastal marine environment from the significant adverse effects of sedimentation associated with plantation forest harvesting thus is in breach of the RMA. At this time, we are uncertain of the status of the litigation. <i>Climate Change</i> EDS calls for strengthening of the Emissions Trading Scheme (ETS). It is opposed to the proposed plan to defund the Climate Emergency Response Fund. EDS is undertaking research on climate adaptation and managed retreat which is intended to inform the climate adaptation policy process and system design, specifically, the proposed Climate Adaptation Act. The research is exploring options for reform, including consideration of

	what new legal tools are required to provide for managed retreat, appropriate governance structures and funding obligations. <i>Forestry</i> EDS advocates for native reforestation to maintain indigenous biodiversity and to act as long-term carbon sinks. It also released a more detailed Briefing for the Incoming Minister of Forestry. <i>Oceans and Fisheries</i> EDS released a briefing for the Incoming Minister of Oceans and Fisheries with asset of key priorities for fisheries sustainability. EDS advocates for the retention of the Oceans Secretariat comprising officials from MPI, MfE and DoC for an integrated approach to oceans management across central Government.
MfE engagement and funding	EDS holds two influential conferences each year: These are: • EDS 2024 Conference which is looking at biodiversity and the climate on 10 -12 June 2024 • Climate Change and Business Conference 9 -10 September 2024 MfE has sponsored these conferences previously. Sponsorship in 2024 is currently being considered and is not confirmed. EDS was awarded \$200,000 in the year 23/24 for NGO Participation in Resource Management Plan-Making. Funding for the 24/25 year is now under review given the new direction by Government on the resource management reforms. EDS has also been contracted to assist in reviewing New Zealand's ocean management system. It will prepare working papers on the key system issues of marine spatial planning and marine protection and deliver a pathway to implementing positive change in oceans management. This independent research will assist addressing the Government manifesto commitments on integrated marine

	management and marine protection and inform potential future oceans management reform. Funding for this project is for \$155,000 over three years with payment tied to phased deliverables.
Any other context	We will be engaging with EDS on the FTC bill, and on the proposals relating to the Te Mana o te Wai hierarchy of obligations within the NPS-FM on 9 February 2024. EDS will be meeting the Minister for Climate Change on 8 February 2024 and the Minister Responsible for RMA Reform on 27 March 2024. EDS is active in the media on environmental issues. Their latest media statement focuses on their opposition to proposed Fast-Track Consenting legislation.

Forest & Bird

Name of	Royal Forest & Bird Protection Society of New Zealand Incorporated (Forest & Bird)
Key contact/s	Nicola Toki – Chief Executive Formerly Operations Director for the Eastern South Island, Department of Conservation Richard Capie - Group Manager Conservation Advocacy and Communication
Organisation background, structure and funding	Forest & Bird is New Zealand's leading independent conservation organisation which protects wildlife and wild places, on land and in the sea. Forest & Bird has a community-based branch structure with a regional and national overview. It has 48 branches of members across New Zealand. Its operations are led by a staff team, and its board is made up of elected roles, representatives from branches, and representatives from its youth wing, Kiwi Conservation Club. Its primary funding comes from donations and grants. It also has corporate partnerships and generates a small proportion of revenue from its membership fees.
Key areas of focus in relation to the Environment portfolio	<i>Resource management</i> Forest & Bird advocates for the protection of nature through the resource management system. It campaigns to put nature first in any new RM system. <i>Freshwater management</i> Forest & Bird advocates for strong rules to protect freshwater. It also wants the government to restore wetlands for both flood mitigation and carbon sinks. In 2022 Forest & Bird released report 'Tukua Ngā Awa Kia Rere – Making Room for Rivers' advocating for a nature-based approach to flood mitigation that restores rivers and wetlands and calls for a contestable fund set up to support councils to flood mitigation. In late 2023 Forest and Bird launched a judicial review of decision making related to the 2022/23 amendments to the

	wetland regulations. Judicial review proceedings are ongoing. <i>Oceans</i> Forest & Bird is concerned with fishing, mining, oil and gas industries and the harm to ocean ecosystems. It advocates for Marine Protected Areas, ending seabed mining, and manages recovery programmes to protect native species. <i>Climate change</i> Forest & Bird advocates for nature-based solutions to reduce emissions and restore biodiversity.
MfE engagement and funding	Forest & Bird Society was awarded \$200,000 in the 23/24 year for NGO Participation in Resource Management Plan-Making. Funding for the 24/25 year is now under review given the new direction by Government on the resource management reforms. They were also funded a small amount to participate in a fast-track consenting process. MfE officials have regular meetings with Forest & Bird CE Nicola Toki. We have invited this group to engage with us on the FTC bill, and on the proposals relating to the Te Mana o te Wai hierarchy of obligations within the NPS-FM on 9 February 2024.

Fish & Game New Zealand

Name of	New Zealand Fish and Game Council (Fish & Game New Zealand)
Key contact/s	Corina Jordan – Chief Executive Appointed in August 2022, previously General Manager of Beef+ Lamb New Zealand
Organisation background, structure and funding	Fish & Game New Zealand manages, maintains, and enhances sports fish and game birds and their habitats in the best long-term interests of present and future generations of anglers and hunters. Fish & Game New Zealand is the collective brand name of the New Zealand Fish & Game Council and 12 regional Fish & Game Councils, established in 1990 to represent the interests of anglers and hunters, and provide coordination of the management, enhancement, and maintenance of sports fish and game (Section 26B of the Conservation Act 1987). The NZ Council is made up of a representative from each of the 12 regional councils. The 12 regional councils operate autonomously once annual budgets are set through a collaborative process coordinated by the NZ Council. Its councillors are unpaid, elected officials. Fish & Game New Zealand oversees the management of the country's sports fish and game resources. To do this the Fish & Game New Zealand Council has several formal statutory powers. The regional Fish & Game councils are the statutory managers of sports fish and game bird resources and their sustainable recreational use by anglers and hunters New Zealand-wide, except in the Chatham Islands and the Lake Taupo catchment which is managed by the Department of Conservation. Fish & Game is primarily funded from the levies payable by Fish & Game Councils, in accordance with 26c(f) of the Conservation Act 1987. Levies apply when someone buys a fishing or hunting license. It also receives some Government funding for specific projects at a regional level.

Key areas of focus in relation to the Environment portfolio	Fish & Game New Zealand advocates for the protection of freshwater environments and maintaining and enhancing the habitats of New Zealand fish and game. In 2023 it released a manifesto for the Government that calls for strong and effective measures to protect rivers and lakes from pollution, water over-allocation and further degradation. Fish & Game New Zealand supports a limits and targets framework for ecosystem health. Fish & Game New Zealand has been highly engaged with resource management reforms and advocates that the purpose of the RM legislation should put the environment first, and that system outcomes should include recreational use and enjoyment. It is also calls for maintaining and enhancing wetlands and enabling landowners to create wetlands and support indigenous biodiversity.
MfE engagement and funding	MfE officials have regular meetings with Fish & Game New Zealand officials including CE Corina Jordan. We have invited this group to engage with us on the FTC policy, and on the proposals relating to the Te Mana o te Wai hierarchy of obligations within the NPS-FM on 9 February 2024. The Chair of Fish and Game is meeting Minister Bishop on 28 March 2024. North Canterbury Fish & Game (NCFG) was awarded \$784,000 from the Ministry's Freshwater Improvement Fund Round 2, for their project: Canterbury High Country Wetland & Waterway Protection (project reference: FIF2044). The project goes from 23/06/2021 – 30/06/2024. The project is managed by the Community Investments Team who frequently communicates with NCFG and manages the project's quarterly reporting.
Any other context	In June 2020, the Minister of Conservation commissioned a review of the governance of Fish & Game New Zealand and regional Fish & Game councils. This was at the request of Fish & Game. The independent review found Fish & Game plays an important role in environmental advocacy and stewardship. It also identified significant

	opportunities to strengthen governance and management good practices.

Greenpeace

Name of	Greenpeace Aotearoa (In November 2020, Greenpeace New Zealand changed its name to Greenpeace Aotearoa)
Key contact/s	Dr Russel Norman – Executive Director Appointed in 2015, formerly a Member of Parliament and co-leader of the Green Party.
Organisation background, structure and funding	Greenpeace Aotearoa is an independent, not-for-profit organisation affiliated with Greenpeace International. In New Zealand it was a loose grassroots network in the early 1970s and was founded as an incorporated society in 1974. It is an autonomous organisation that works to align its campaigns, fundraising and administration with the framework and politics agreed by Greenpeace International. Greenpeace Aotearoa is governed by 7-8 board members that delegate day to day management to the Executive Director. The board is elected by a voting assembly comprising between 30 and 45 members. It employs staff to manage its operations, campaigns and fundraising, and has volunteer members. Greenpeace Aotearoa is independent and does not receive funding from Government or corporations. Its funding comes from donations, grants, and bequests.
Key areas of focus in relation to the Environment portfolio	Greenpeace promotes the protection and preservation of nature and the environment. <i>Climate and agriculture</i> It has run a multi-year campaign calling on the Government to halve the industrial dairy herd and support a transition to regenerative farming. It advocates for the restoration of freshwater including rivers and lakes. Greenpeace also has an interest in synthetic nitrogen fertiliser use, Synthetic nitrogen 'fertiliser', New Zealand's hidden climate killer. - Greenpeace Aotearoa and also nitrates in water, Nitrate contamination in drinking water: what you need to know and some frequently asked questions - Greenpeace Aotearoa.

	<i>Ocean protection</i> Its core campaigns in this area are related to banning bottom trawling, calling for ocean sanctuaries, and ending deep sea mining. <i>Waste and plastics</i> It is campaigning for the Government to support a global plastics treaty, ban single use plastic bottles and commit to a plastic free Aotearoa. <i>Energy</i> Greenpeace advocates for 100% renewable energy and is opposed to the proposed reversal of the ban on offshore oil and gas exploration.
MfE engagement and funding	MfE officials have engaged with officials from Greenpeace Aotearoa. We have invited them to engage on the FTC bill, and on the proposals relating to the Te Mana o te Wai hierarchy of obligations within the NPS-FM on 9 February 2024. Greenpeace is active in the media. Their latest media statement focuses on fast-track consenting.

World Wildlife Fund

Name of	World Wildlife Fund for Nature (WWF)
Key contact/s	Dr Kayla Kingdon-Bebb – Chief Executive Officer Appointed in March 2023, previously Director of Policy at the Department of Conservation.
Organisation background, structure and funding	WWF New Zealand is part of the WWF International Network. World Wildlife Fund was established in 1961, with a focus on helping save the world's wildlife. WWF-New Zealand was established as a charitable trust in 1975. WWF New Zealand is governed by a board of up to 8 trustees and the day-to-day operations are managed by staff. It is also supported by volunteers around the country. WWF's funding is predominantly from individuals, businesses trusts and foundations, New Zealand Government overseas deployment funds and the WWF network. It also receives funding from local Government, merchandise sales and royalties. In the financial year ending 30 June 2023, WWF received \$417,862 in funding from other government agencies.
Key areas of focus in relation to the Environment portfolio	WWF's programmes are focused on protecting habitats and species and minimising harm from fishing and other activities. It has a key focus on protecting and restoring the marine environment and advocates for the expansion of marine protected areas. It is also concerned with waste and plastic pollution. WWF encourages the Government to help deliver an ambitious global treaty to end plastic pollution. WWF is focused on biodiversity loss and wants to see effective implementation of the National Policy Statement on Indigenous Biodiversity (NPSIB). WWF opposes any move to weaken the provisions of the NPSIB, including revision of the science-based criteria that guide the identification of Significant Natural Areas (SNAs). WWF would also like to see further work on the creation of a biodiversity incentives scheme to enable landowners and tangata whenua to realise value from SNAs.

	WWF advocates for the Government to prioritise nature-based solutions as part of the Government's response to climate change and achieving net zero greenhouse gas emissions by 2050. It believes the Emissions Trading Scheme (ETS) is not fit for purpose and is opposed to the proposed plan to defund the Climate Emergency Response Fund. WWF is opposed to the proposed reversal of the ban on offshore oil and gas exploration.
MfE engagement and funding	MfE officials have regular meetings with WWF CEO Dr Kayla Kingdon-Bebb. WWF have been invited to engage with us on the FTC bill, and on the proposals relating to the Te Mana o te Wai hierarchy of obligations within the NPS-FM on 9 February 2024.



Aide memoire: Notes for your meeting on Thursday 8 Feb 2024 with the Chairman of the Environmental Defence Society (EDS)

Date submitted: 5 February 2024

Tracking number: BRF-4181

Security level: IN CONFIDENCE

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Simon Watts Minister of Climate Change	For noting only
CC Hon Penny Simmonds Minister for the Environment	For noting only

Appendices and attachments
Appendix 1: EDS Working Paper #1 (Principles and Funding for Managed Retreat) Appendix 2: EDS Working Paper #2 (Current Policy and Legislative Framework for Managed Relocation) Appendix 3: EDS Working Paper #3 (Options and Models for Managed Relocation Policy) Appendix 4: EDS Media Release (1 February 2024) Appendix 5: EDS Letter to the Minister (5 December 2023)

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Rowan Taylor	022 066 0471	
Responsible Manager	Macaela Flanagan	022 023 4470	
Deputy Secretary, Acting	Sara Clarke	021 708 305	✓

Notes for your meeting on Thursday 8 Feb 2024 with the Chairman of the Environmental Defence Society (EDS)

Purpose

1. This aide memoire provides background and talking points for your meeting with Gary Taylor, Chairman and CEO of the Environmental Defence Society (EDS).

Background

2. Since 1971, EDS has based its environmental advocacy on high quality legal, scientific, and planning expertise. EDS is apolitical and its work includes:
 - support and capacity building for community advocacy and for councils;
 - research and policy analysis on important environmental issues;
 - litigation on important environmental issues (e.g. the King Salmon case); and
 - profiling key environmental issues through seminars and conferences.
3. The Ministry for the Environment (MfE) has previously funded research from the EDS across relevant areas.
4. Of relevance to your portfolio, EDS and the Sustainable Business Council jointly organise the annual Climate Change and Business Conference at which you will be making a keynote address in Auckland in September of this year.
5. EDS undertakes work on climate issues, including three recent working papers on climate adaptation and managed retreat options (Appendices 1-3, below).
6. EDS has also developed a suite of proposals on climate mitigation and emission reductions. These are outlined in Mr. Taylor's letter of 5 December 2023 (Appendix 4) and are briefly summarised in the following talking points.
7. In a recent media release (1 February), EDS expressed concern about the Resource Management Reform 'fast track' bill (Appendix 4). In the media release, Mr. Taylor states that:
 - "We haven't had Ministerial decision-making on individual projects in this country in modern times. There are good constitutional reasons for that – granting regulatory approvals should not be used as a way to raise political capital or engage in pork-barrel politics. We cannot have law that enables private developers to lobby Ministers for approvals..."

- “EDS remains very willing to engage with Ministers in the development of this Bill which will need significant changes to make it acceptable. Fast-track is not a bad thing but this proposal goes way too far. There is a point where we will stand our ground.”

Talking Points

8. Our expectation is that the focus of this meeting will be on matters relating to your portfolio, namely climate adaptation and mitigation. However, should Mr. Taylor also raise fast tracking consenting, our suggestion is that you note that this is the responsibility of Minister Bishop and would require further discussion with him.
9. On climate adaptation, you may wish to ask about the managed retreat options in the latest EDS working paper (Appendix 3) and share some of your own thinking.
10. On climate mitigation, EDS has identified a number of concerns that you may wish to comment on. The following list is a summary of the concerns noted in Mr. Taylor’s letter to you (which can be read in full in Appendix 5):
 - **The ETS Review.** EDS considers that the review should proceed because the ETS in its current state will not, on its own, drive the gross emissions reductions required to meet near-term emissions budgets.
 - **The Climate Emergency Response Fund.** EDS considers that the CERF should not be discontinued, noting that co-funding for industrial emissions reductions from the CERF has been an effective and rapid way of driving reductions that would not have occurred under the ETS.
 - **The ETS industrial free allocation.** EDS considers that free allocation should cease and that the basis for industrial support in the ETS should be fundamentally overhauled to provide a clear path for companies to transition to zero-emissions production, rather than protecting the status quo.

Suggested comment: The NZ ETS is a key tool in this Government’s plan to reduce emissions and meet its climate obligations. The Government is committed to providing confidence and certainty to participants, thus ensuring the NZ ETS remains a strong and stable market.
11. The letter also includes thoughts on emissions:
 - **Methane emissions.** EDS considers that “no additional warming” is not a suitable target for agricultural methane, noting that, if the agricultural sector does not pull its weight by making actual reductions, other sectors of the economy will be, in effect, subsidising agriculture.

Suggested comment: This Government is committed to undertaking a robust and science-led evidence-based review of methane settings and introducing emissions pricing no later than 2030. The Government is supporting farmers by ensuring they have the tools they need to reduce their emissions and monitor progress. This will assist continued access to free trade agreements.

- **Nitrous oxide (NO) emissions.** EDS considers that there is a need for separate policy and targets for NO because, while NO is included in the reductions targets, its absence from the ETS removes the incentive to reduce it, thereby forcing ETS participants to make up the difference.

Suggested comment: The Government recognises that agriculture is New Zealand's main source of nitrous oxide emissions. We believe that supporting farmers to reduce their methane emissions will lower New Zealand's nitrous oxide emissions.

- **Long-term, rather than short-term, benefit-cost analysis.** EDS considers that benefit-cost analysis should fully reflect long-term impacts, noting that any analysis based on current ETS prices will not do this - unlike the US and UK, where the social cost of carbon is US\$200/t and £250/t, respectively.
- **Native reforestation.** EDS proposes a biodiversity incentives fund to help establish native forests as long-term carbon sinks that, unlike exotic forests, will provide multiple co-benefits for water, soil, landscape, and biodiversity.

Suggested comment: This Government is open to exploring other forms of sequestration and carbon removals, aside from exotics, and recognising them. At COP, NZ committed to working with officials and ministerial colleagues on the Recloaking Papatūānuku proposal which focuses on restoring native forests.

- **The Emissions Reduction Plan 2026-30.** EDS considers that this second emissions reduction plan should aim to over-achieve by ensuring that both short- and long-term objectives are met, thereby reducing the need for offshore purchases toward our Paris Agreement NDC.

Suggested comment: This Government is committed to reducing emissions. Ministry officials are currently preparing for the second emissions reduction plan (ERP2) to set out how we'll meet national emissions reduction targets through to 2050.

- ERP2 will be focused on highly impactful actions with priority on areas like:
- increasing renewable energy generation
- building up our electric vehicles charging infrastructure.
- ERP2 will also be informed by advice from the independent Climate Change Commission.

Next steps

12. The schedule for your meeting with Mr. Taylor is as follows:

Time: 11.15 – 11.45am

Day: Thursday, 8 February 2024

Place: Your office

Signatures



Sara Clarke

Deputy Secretary (Acting)

**Partnerships, Investments and
Enablement**

Hon Simon Watts

Minister of Climate Change

Appendix 1: EDS Working Paper #1

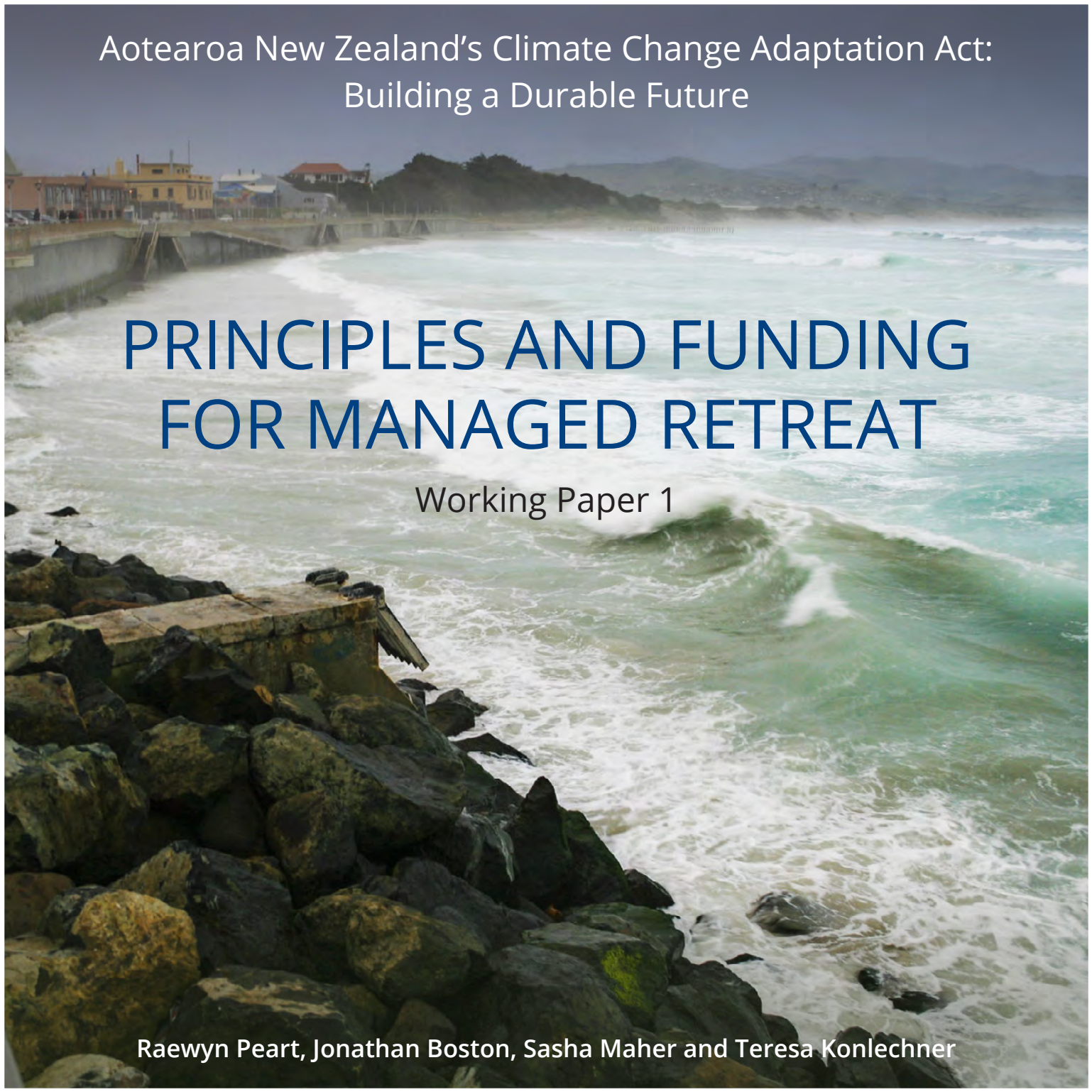
Principles and Funding for Managed Retreat

Appendix 2: EDS Working Paper #2

Current Legislative and Policy Framework for Managed Relocation

Appendix 3: EDS Working Paper #3

Options and Models for managed Relocation Policy



Aotearoa New Zealand's Climate Change Adaptation Act:
Building a Durable Future

PRINCIPLES AND FUNDING FOR MANAGED RETREAT

Working Paper 1

Raewyn Peart, Jonathan Boston, Sasha Maher and Teresa Konlechner

Aotearoa New Zealand's Climate Change Adaptation Act:
Building a Durable Future

PRINCIPLES AND FUNDING FOR MANAGED RETREAT

Working Paper 1

Raewyn Peart, Jonathan Boston, Sasha Maher and Teresa Konlechner

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Table of contents

Executive Summary	vii		
1 Introduction	1	5.12 Te ao Māori Principles	25
PART 1: CONTEXT FOR MANAGED RETREAT		5.13 Ecological Justice Principle	27
2 What is managed retreat?	5	5.14 Conservation Principle	27
2.1 Unmanaged retreat	6	5.15 Ability to Pay Principle	27
2.2 Managed retreat	6	5.16 Beneficiary Pays Principle	28
2.2 Transformational retreat	7	5.17 Polluter-pays Principle	28
2.3 Components of managed retreat	7	5.18 Subsidiarity Principle	28
2.4 Aotearoa New Zealand's experience with managed retreat	9	5.19 Procedural Justice Principle	28
3 Why we need managed retreat and what it will cost	11	5.20 Voluntarism Principle	29
3.1 Climate risks	11	5.21 Precautionary Principle	29
3.2 Risks for Māori	12	5.22 Avoid Maladaptation Principle	29
3.3 Potential costs	12	5.23 Bringing the principles together	30
PART 2: KEY PRINCIPLES UNDERPINNING MANAGED RETREAT		PART 3: ADDRESSING RESIDENTIAL PROPERTY LOSS	
4 Worldviews underpinning approach to managed retreat	15	6 Why public compensation might be needed	31
4.1 Market liberalism	17	7 Experience in other countries	33
4.2 Te ao Māori	17	8 Designing public compensation for Aotearoa New Zealand	37
4.3 Eco-centrism	18	8.1 Design considerations	37
4.4 Hybrid worldview	18	8.2 Compensation for residential property owners	37
5 Principles which could be applied to managed retreat policy	21	8.3 Compensation for residential tenants	44
5.1 Transformative Principle	22	8.4 Funding for Māori	44
5.2 Solidarity Principle	22	8.5 Implications for institutional design	45
5.3 Remedial Responsibility Principle	23	9 Funding public compensation	47
5.4 Fair Opportunity Principle	23	9.1 Potential costs of public compensation	47
5.5 Least Advantaged Principle	23	9.2 Raising revenue for compensation	48
5.6 Needs Satisfaction Principle	24	9.3 Co-funding compensation	49
5.7 Intergenerational Equity Principle	24	9.4 Pre-funding compensation	49
5.8 Compensatory Justice Principle	24	PART 4: ADDRESSING IMPACTS ON OTHER SECTORS	
5.9 Restorative Justice Principle	25	10 Providing for nature in managed retreat	51
5.10 Comparative Justice Principle	25	10.1 Effects of climate change on nature	51
5.11 Recognition Justice Principle	25	10.2 How nature can adapt to climate change	53
		10.3 Supporting the adaptive capacity of nature	54

10.4	Funding managed retreat of nature	56	12.4	Fisheries	67
11	Managed retreat and infrastructure	59	12.5	Tourism	67
11.1	Infrastructure climate risks	60	12.6	Banking	68
11.2	Managed retreat of infrastructure	61	12.7	Insurance	69
11.3	Funding managed retreat of infrastructure	63	12.8	Māori business	70
12	Managed retreat and business	65	12.9	Funding managed retreat for business	71
12.1	Climate risks affecting business	65	13	Conclusions	73
12.2	Agriculture	66	References	74	
12.3	Horticulture	66			

List of figures

1	Types of adaptation responses	6	6	Options for public compensation for loss of residential properties	42
2	Components of managed retreat	8	7	The components of infrastructure	59
3	MFE’s proposed objectives and principles for managed retreat	16	8	The value of different sectors in the Māori economy	71
4	Principles which could be applied to managed retreat policy	22			
5	International examples of public compensation for managed retreat	34			

Abbreviations

EDS	Environmental Defence Society	IPCC	Intergovernmental Panel on Climate Change
EQC	Earthquake Commission	MFE	Ministry for the Environment
GDP	Gross domestic product	RMA	Resource Management Act 1991

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The Environmental Defence Society would like to thank IAG New Zealand, ASB Bank, Beca and Wellington City Council for providing financial support for the project. EDS would also like to acknowledge the substantive contributions of Kaiwhakatere Jenna Poff and Kaiwhakahaere John Blyth from Te Ahi Tūata – Beca Māori Advisory Services and EDS Legal and Policy Researcher Ben Tombs to the project. We also acknowledge the contributions of the KPMG Sustainable Value Team and the Aotearoa Climate Adaptation Network.

EXECUTIVE SUMMARY

1. Introduction

We live in a climate changing world. Weather-related disasters are becoming increasingly commonplace. We know that such events will increase over time. These changes in the climate place more and more humans and other species in harm's way. Māori are particularly susceptible to a climate changing world which threatens their connections to land and ecosystems.

To address this unprecedented challenge the Government proposed a new piece of legislation in 2020 called the Climate Adaptation Act. This Act is intended to address the complex and distinctive issues associated with managed retreat such as funding, compensation, land acquisition, liability and insurance. It is considered necessary because other proposed legislation, such as the new Natural and Built Environment Act and Spatial Planning Act, and the existing Public Works Act, are inadequately tooled to enable people and infrastructure to be moved out of harm's way.

The Ministry for the Environment (MFE) produced a consultation document on managed retreat in April 2022. Government is expecting to introduce a Climate Adaptation Bill into Parliament by the end of 2023. The Environmental Defence Society's (EDS) *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future Project* is developing recommendations for the content of the new Climate Adaptation Act. The project commenced in June 2022 and will produce three working papers followed by a final synthesis report in December 2023. This working paper is the first in the series. It focuses on conceptualising managed retreat, exploring what principles might underpin a new system, and considering how it might be funded.

The project working papers are designed to seek feedback on work in progress as we develop up ideas for incorporation into the final synthesis report. In particular, through this working paper we are seeking feedback on what the purpose of managed retreat should be, what principles should underpin it, and what funding support (if any) should be provided to those affected by it.

Part one: Context for managed retreat

In Part One of this Working Paper we explore the concept of managed retreat, why we might need to contemplate it in Aotearoa New Zealand, what it might cost and the experience of managed retreat in the country to date.

2. What is managed retreat?

Retreat is one of a range of possible adaptation responses in the face of known risk. Other responses include: avoiding the risk in the first place by preventing new development in risk prone areas; reducing the risk (at least in the short term) by creating soft or hard defences; and accommodating erosion/flooding events through such measures as raising building floor levels and constructing floodwater detention facilities.

'Managed' retreat involves the purposeful, coordinated movement of people and assets out of harm's way. Ideally it is pre-emptive, taking place before damage occurs. Alternatively, retreat can be 'unmanaged' when it is allowed to unfold in an ad hoc manner over time, with people gradually relocating in the face of increased damage and risk. Such an unmanaged approach can result in considerable inequities, including effectively trapping those who cannot afford to move in a high-risk environment. 'Transformational' retreat actively seeks positive societal and environmental outcomes as part of a managed retreat process.

Over recent decades, Aotearoa New Zealand has witnessed increasing instances of managed retreat. Most cases have been relatively small and involved only a few properties following a disaster. By far the largest example of managed retreat in the country occurred in Christchurch following the major earthquakes in 2010-11. The risk-based delineation of 'red-zones' affected close to 8,000 properties and involved the relocation of more than 20,000 people.

In almost all cases, public authorities have sought to acquire affected properties on a voluntary basis. Owners have usually been compensated based on their properties' current market value, pre-disaster rateable value or similar. Some communities which have been severely affected by river flooding and/or coastal inundation, and for which impacts are predicted to significantly increase in the future, have been unable to agree on managed retreat as part of a wider process of adaptation.

Overall, this experience indicates that *post-disaster* managed retreat has been difficult, and that *proactive* managed retreat will likely be even harder to implement. It will require skilled and dedicated personnel, and excellent co-ordination between public agencies, iwi/hapū and affected parties.

Questions for discussion:
1. How should Aotearoa New Zealand's managed retreat framework be linked to other adaptation responses?
2. When does climate risk become intolerable and to whom?
3. When is managed retreat an appropriate response to risk as opposed to unmanaged retreat?
4. When should the public interest in pre-emptive retreat override individual preferences?
5. Should Aotearoa New Zealand's managed retreat framework focus only on reducing risk or should it be more transformative?
6. What opportunities are there to improve environmental, social and cultural outcomes through managed retreat?
7. What can we learn from Aotearoa New Zealand's experience with managed retreat to date?

3 Why we need managed retreat and what it will cost

Global greenhouse gas emissions are increasing. Extreme temperatures are becoming more frequent and intense, along with storm events causing flooding. For a coastal nation like Aotearoa New Zealand, projections for sea level rise are also cause for considerable concern. Moreover, the tectonic sinking of land along many parts of the country's coastline means that many settlements and much infrastructure will be at increasing risk.

The adverse impacts of climate change, specifically sea level rise, has significant implications for Māori and the many rights and interests of iwi/hapū. Similarly exposed are many recreational, heritage, cultural and ecological assets. In many cases, the only effective and affordable long-term response to climate risks will be to move people and structures out of harm's way.

Estimating the likely scale of potential managed retreat is extremely difficult. There are numerous uncertainties. One estimate is that annual

costs will be under 1 per cent of the country's GDP (which was around NZ\$350 billion in 2022) over the next few decades.¹ Later in the century, the annual costs may exceed this, depending on the pace of economic growth, the success of adaptive responses, and the success of global mitigation efforts.

Managed retreat will involve the loss of land, buildings and infrastructure. Few such losses will likely be covered by insurance where retreat occurs before property damage. Managed retreat will also result in many other costs for those relocating, as well as for public bodies involved in planning and managing the movement of people and structures. There are also the costs of clearing and rehabilitating vacated land. However, in many cases managed retreat is likely to be the cheapest response option to climate risk in the long term.

Questions for discussion:
1. In what circumstances is managed retreat the best response to growing climate risks?
2. How can the rights and interests of iwi/hapū best be protected during managed retreat processes?
3. What costs of managed retreat need to be considered?
4. To what extent can insurance cover part of the costs?
5. Who should be responsible for which costs?
6. How do we value non-tangible values such as amenity and cultural sites of significance?
7. When is managed retreat the most cost effective approach in the long term?

Part two: Key principles underpinning managed retreat

In this Part of the Working Paper we consider what worldviews might underpin Aotearoa New Zealand's approach to managed retreat, and what principles might be applied to its policy design. In doing so we reflect on the set of objectives and principles for managed retreat legislation and funding proposed by MFE in its recent Consultation Document.²

EDS will be developing a purpose statement for managed retreat as part of this project. Some directions for such purpose statement can be drawn from the worldviews and principles discussed in the following chapters. We welcome input into what such a purpose statement should contain.

Question for discussion:

1. What should be the purpose(s) of managed retreat in Aotearoa New Zealand?

4 Worldviews underpinning approach to managed retreat

Worldviews are a system of meanings that help people make sense of their relations with the human and non-human worlds. Legal and ethical principles are underpinned by worldviews and have built in assumptions about what is right and wrong. Before discussing potential principles to underpin managed retreat law and policy, we explore different worldviews that can help inform these; market liberalism, te ao Māori, eco-centrism and a hybrid worldview formed by drawing elements from each of the three other approaches.

Market liberalism is an anthropocentric approach based on the principles of personal liberty, private property and limited government interference. Individual choice and action are prioritised ahead of government intervention. Such an approach would favour ‘unmanaged’ as opposed to ‘managed’ retreat because this would leave the individual property owner in the driving seat of response to risk.

Te ao Māori emphasises the importance of relationships between nature and people. Through the lens of te ao Māori the collection of ‘things’ that comprise managed retreat have their own whakapapa and wairua and are critical to expressions of mana and kaitiakitanga. Managed retreat informed by a te ao Māori worldview would see its objectives and principles developed from a place of rangatiratanga, with tikanga as the guide. Māori would have a strong governance and stewardship role.

Eco-centrism sees nature as holding interests and rights that should be recognised and defended. From an eco-centric lens, managed retreat would recognise the right of nature to exist and co-evolve with humans in shared habitats. For example, humans would relinquish land to make room for habitats and species to move inland as sea level rises.

A hybrid approach in which aspects of te ao Māori, market liberalism and eco-centrism underpin a managed retreat approach for Aotearoa New Zealand could potentially be developed. However, there are tensions between the three approaches as they reflect different priorities. It may be less useful to ask which worldview should be adopted or rejected than to determine what direction to head in so that complementarities can evolve along the way. Combining elements of different worldviews will always create some tensions, but it is important that these are rendered visible, so policy can fairly and equitably address them.

Questions for discussion:

1. What worldviews should underpin Aotearoa New Zealand’s approach to managed retreat?

2. Should we seek to combine elements of different worldviews?

3. How should we best manage tensions between different worldviews?

5 Principles which could be applied to managed retreat policy

Worldviews or ‘cognitive maps’ are operationalised through legal and ethical principles. In this chapter we explore different principles that a future managed retreat system could adopt (which are summarised below). They include both substantive and procedural principles.

Transformative Principle	Social power and constraints should be transformed to deliver improved outcomes for people and nature
Solidarity Principle	Members of a group should support each other to fulfil mutual rights and obligations
Remedial Responsibility Principle	People who need help should be given assistance
Fair Opportunity Principle	People should not be penalised due to circumstances beyond their control

Least Advantaged Principle	It is important to protect the interests of those who are the least advantaged or have the greatest need
Needs Satisfaction Principle	It is important to meet basic human needs
Intergenerational Equity Principle	Those currently alive have a moral obligation to protect the interests of future generations
Compensatory Justice Principle	Unjustified loss, damage or disruption should be compensated for
Restorative Justice Principle	It is important to repair the relationship between those who have been wronged and those who have caused the harm
Comparative Justice Principle	Alike cases should be treated alike
Recognition Justice Principle	It is important to address the underlying causes of inequities
Te ao Māori Principles (Tino Rangatiratanga)	Māori should retain self-autonomy in decision-making over their land and resources
Ecological Justice Principles	Nature should be included in the human community of justice
Conservation Principle	There is a need to protect the ecological integrity and ecological health of natural systems
Ability to Pay Principle	Those who are wealthier have a greater duty to pay than those who are poorer
Beneficiary Pays Principle	Those who receive private benefits from public policy should provide compensation for them
Polluter-pays Principle	Those responsible for causing harm should pay to remedy it
Subsidiarity Principle	Decisions should be made closest to those most affected by them
Procedural Justice Principle	People should have the right to participate in decisions that affect them

Voluntarism Principle	Voluntary action is to be preferred over compulsion
Precautionary Principle	Lack of scientific certainty should not be used as a reason to avoid taking action
Avoid Maladaption Principle	It is important to avoid unintended negative consequences from decisions

These principles provide a general touchstone for the development of a managed retreat policy that provides a ‘just transition’, where the impacts and opportunities created by change are more evenly distributed. The principles indicate a need to look after the more vulnerable members of the community, as well as nature and future generations, when planning retreat strategies. They also emphasise the need to face the challenge of climate change adaptation as a collective, rather than leaving individuals to suffer the consequences alone. Importantly, the principles emphasise the importance of empowering Māori to be key decision-makers, particularly where Māori-owned land, resources and communities are affected. The ability of communities to actively participate in decisions that affect them is also highlighted, as well as the importance of supporting voluntary action in the first instance before compelling people to adapt.

Questions for discussion:

- Which principles should be applied to Aotearoa New Zealand’s managed retreat system?
- Which principles should be prioritised or have greater weight?
- What are the trade-offs between principles?
- What are the key elements of a just transition in the context of managed retreat?
- What do the principles indicate regarding the role of Māori in managed retreat?
- What do the principles suggest regarding the design of appropriate funding policy?

Part three: Compensation for loss of residential property

In this Part of the Working Paper we discuss the potential provision of public compensation for the loss of residential property in managed retreat. We examine why public compensation might be needed in Aotearoa New Zealand, how it has been provided in other countries, how it might be designed for this country and how such a scheme might be funded. In Part Four we consider the implications of managed retreat for other sectors.

6 Why public compensation might be needed

Many of the principles described in Chapter 5 indicate the need for, and desirability of, some form of public compensation for the impacts of managed retreat on residential property. These include upholding the tradition of social solidarity (including collective risk-pooling), upholding the principle of remedial responsibility (where people in need are given assistance), incentivising voluntary relocation and upholding the principles of compensatory and restorative justice. Also important is the long-established legal principle that public compensation should be provided when the state acquires private property on a compulsory basis.

Overall, it seems unlikely that a long-term programme of relocation would secure the required level of cooperation from those directly affected without some measure of public support or compensation. Many residential property owners, along with many tenants, will simply lack the resources to move. In addition, compulsory acquisition of private properties without compensation would likely be subject to lengthy litigation.

Questions for discussion:
1. Is a public compensation scheme for residential property needed and/or desirable to support managed retreat in Aotearoa New Zealand?
2. Could managed retreat of residential areas realistically be undertaken without some form of public compensation?

7 Experience in other countries

Relatively few countries have comprehensive national-level policy frameworks to address the many and varied costs of climate change adaptation. Current funding responses tend to be ad hoc. In addition, we found no examples of governments pre-funding some of the expected long-term costs of climate change adaptation.

Most examples of managed retreat have been modest in scale, typically involving only several dozen to a few hundred properties. In most cases where publicly-mandated relocations have been undertaken, some form of public assistance was provided to the affected residents. Funding typically comes from either the central government, sub-national governments, or some combination of both.

There are lessons from international experience that can help inform the consideration of a public compensation scheme in Aotearoa New Zealand. These include that managed retreat is often controversial, voluntary measures are generally preferred and public acceptance of managed retreat is affected by multiple factors. Further lessons are that managed retreat tends to exacerbate inequalities, the needs of renters are often neglected, indigenous peoples may end up being the most disadvantaged, and co-funding across different levels of government can be problematic.

Despite its many difficulties, international experience indicates that managed retreat will often constitute the most cost-effective and perhaps only technically feasible solution to climate-induced flooding and sea level rise. If undertaken sufficiently early, a well planned and executed managed retreat programme will reduce long-term risks, enhance a community's resilience, and generate other positive outcomes and opportunities including benefits for nature.

Additionally, international research highlights that the ability of societies to adapt to sea level rise, and enhance their resilience to climate change impacts, is less about their technical prowess and more about social and political factors such as the quality of governance. Adaptive capacity is reliant on having the necessary policy frameworks and decision-making processes in place that can resolve (or at least manage) the inevitable societal conflicts that will arise. They also need to enable informed and prudent decision-making and mobilisation of the required financial and other resources.

Question for discussion:
1. What can we learn from overseas experience to help design an effective managed retreat system in Aotearoa New Zealand?

8 **Designing public compensation for Aotearoa New Zealand**

In this chapter we develop a series of options for how a public compensation scheme could be designed for Aotearoa New Zealand. We then turn, in Chapter 9, to how the scheme might be funded and administered and what other regulatory and policy changes might be required to support such a scheme.

When considering the design of a public compensation scheme for residential property there are a number of important considerations. These include what the goals of the scheme should be, what principles should underpin it, who should be eligible for compensation, and how properties should be valued. Ultimately there is no *optimal* way to design a public compensation scheme for managed retreat.

We identify 12 *possible* options along with a brief assessment of their respective advantages and disadvantages. They include compensation based on replacement cost or the value of a comparable property; the imposition of a fixed cap or requirement for a fixed percentage contribution from property owners; compensation based on a flat-rate or on the estimated remaining life of the building; adjustment of compensation to reflect knowledge of climate risk; differentiation based on principal place of residence, on the means of the owner or on whether the sale is voluntary or compulsory; and annual caps on the total amount paid out or a fixed future date after which compensation would not be payable. We also note that it will be important, both in the interests of distributive justice and to protect the wellbeing of affected tenants including Māori, for any strategy of managed retreat to incorporate specific provisions to assist tenants.

In this chapter we also identify several ways in which funding could be provided to assist managed retreat within Māori communities. Central government funding in this area is currently focussed on research and more funding could be provided for undertaking community-based managed retreat trials to test various approaches. Funds to improve resilience of Māori communities could also be incorporated into other projects such as when infrastructure is rebuilt or relocated. Councils could provide funding support to iwi and hapū embarking on their own climate risk and adaptation work. Māori representation on council climate change committees will also be important.

Managing a compensation scheme and/or funding support for managed retreat will be complex and may require strengthened institutions. There are a range of options for institutional re-design including adding new

functions to an existing public entity or creating a distinctive, special-purpose body with unique governance arrangements, perhaps with representatives of the Crown, councils and mana whenua all serving on the governing body.

Questions for discussion:
1. What options for the design of a public compensation scheme for residential property owners are worthy of further investigation and development?
2. How should tenants be supported in managed retreat?
3. How should funding be made available to Māori to support managed retreat?
4. What institutions might be needed to manage compensation/ funding schemes?

9 **Funding public compensation**

It is difficult to estimate the cost of a public compensation scheme due to a large number of unknown factors. In this chapter we pose a scenario where 50,000 residential properties are affected by managed retreat, with compensation of \$1 million per dwelling offered by government. The result is an overall cost of \$50 billion or \$1 billion per annum. This is less than 1 per cent of the current annual expenditure of government.

There are multiple ways to obtain the revenue necessary for a public compensation fund for managed retreat. In no order of importance, these sources could include:

1.	General taxation (central government)
2.	Property taxes (local authorities)
3.	An additional levy on home insurance policies (and perhaps other insurance)
4.	An additional levy on fossil fuels (eg petrol and diesel)
5.	Drawing revenue from the Climate Emergency Response Fund – which recycles proceeds from the emissions trading scheme
6.	Revenue from renting purchased properties until removal or demolition

- 7. Revenue from relocating dwellings and other structures that can be moved cost-effectively, and re-selling them
- 8. New taxes, such as a comprehensive capital gains tax

There is no reason, in principle, why a public compensation scheme could not be funded simultaneously from multiple sources. Additionally, along with central government, costs could be co-funded by property owners and/or local government. However, the ‘ability to pay’ principle indicates that a significant proportion of the costs might best be sourced from general taxation revenue. Such an approach could also minimise administration and compliance issues. Pre-funding could also be achieved by establishing a Climate Adaptation or Managed Retreat Fund.

Questions for discussion:
1. To what extent should a public compensation scheme be funded by general taxation as opposed to specific levies?
2. Should property owners and/or local government cover part of the costs of a compensation scheme?
3. Should some of the costs of managed retreat be pre-funded?
4. Should a Climate Change Adaptation or Managed Retreat Fund be established?

Part four: Addressing impacts on other sectors

In this Part we consider how managed retreat might impact other sectors and how costs might be addressed. We first focus on nature, then infrastructure, before turning to a range of business sectors.

10 Providing for nature in managed retreat

Loss and change to natural ecosystems is an unavoidable consequence of climate change. Impacts of sea level rise will be most profound on estuaries, coastal lagoons and dune communities.³ ‘Coastal squeeze’, where the migration of coastal habitats is constrained by natural or constructed barriers, is expected to affect many estuaries and lagoons in Aotearoa New Zealand. Prolonged beach and dune erosion will lead to the loss of habitat for species that occupy the dynamic coastal margin. Vulnerability of species to the impacts of climate change is in many cases

heightened by the already degraded state of many ecosystems due to human activity.

Natural systems possess some innate capacity to adapt to climatic and environmental change. However, this will often be inadequate due to the legacy impacts of land use change, habitat fragmentation and ecological degradation. This means that ecological resilience in the face of climate change will require active support. Opportunities to support biodiversity adaptation in Aotearoa New Zealand include: removing physical barriers to adaption such as seawalls and stopbanks (in some cases termed ‘managed realignment’); protecting and restoring natural processes and ecosystem health (such as through pest eradication and creating habitat connectivity); protecting habitat (such as creating more protected areas); and undertaking species-specific approaches (such as translocations). Actions to support the post retreat restoration of vacated lands will also be important.

Current funding is insufficient to address existing threats to New Zealand’s biodiversity, let alone new initiatives that will require implementation at a national scale and across multiple ecosystems. This indicates a need for significantly increased biodiversity funding as climate change impacts on nature increase.

Questions for discussion:
1. How can nature best be factored into managed retreat policies?
2. What accommodation might need to be made for species and habitats to move?
3. To what extent should nature be prioritised when planning for managed retreat?
4. How can conflicts between the needs of nature to adapt and the desire of people to protect property be resolved?
5. How can actions to assist nature to adapt best be funded?

11 Managed retreat and infrastructure

In simple terms, infrastructure consists of structures that enable the movement and operation of services that people need. It includes telecommunications, energy, water, waste and resource recovery,

transport and social services. Ownership and operation of infrastructure spans both the public and private sectors.

Aotearoa New Zealand’s geography, coupled with urban and rural development decisions, has created a network of infrastructure that is either located in floodplains or on the coast. Half a metre of sea level rise will likely affect infrastructure with a replacement value of \$2.7 billion, increasing to \$7.8 billion with sea level rise of 1.5 metres. Such estimates do not include other significant costs which will be incurred by infrastructure providers due to climate risks and managed retreat.

Managed retreat of infrastructure will need to occur in two specific circumstances. The first is when assets are threatened by climate risks and need to be moved out of harm’s way. The second is when infrastructure needs to move alongside communities as they undertake managed retreat. Managed retreat provides the opportunity to improve the resilience of infrastructure. In relocating infrastructure, it is important to avoid mistakes of the past, such as when Māori land was taken for the establishment of infrastructure.

Current infrastructure funding comes from central government (taxpayers), general and targeted rates (ratepayers), banks and government loans, and user charges (consumers). In order to close the current \$210 billion infrastructure deficit, and respond to climate change impacts and other demand and supply-side pressures, more funding options are likely needed. Potential additional funding sources include:

- Pricing: congestion charging, road user charges and water metering
- Targeted rates: on wastewater and waste volumes
- Debt: using Special Purpose Vehicles via the new Infrastructure Funding and Financing Act 2020 to accrue levies which can be borrowed against
- Private-public partnership: long-term contracts between government and the private sector for the provision of services

Key to enabling the efficient use of funding is long-term planning, timing and co-ordination across sectors. To the extent possible, the asset management cycle should align with the timing of managed retreat, and take a long-range view so that any investment is optimised and occurs at the same point that rebuild is required. Infrastructure providers may also need to align their adaptation plans.

Questions for discussion:
1. What financial sources could be utilised to fund managed retreat of infrastructure?
2. To what extent should taxes and rates be relied on as opposed to user charging?
3. How does the current infrastructure deficit impact managed retreat?
4. To what extent is it desirable and practicable to ‘build back better’?
5. How can managed retreat of infrastructure best accommodate the needs of iwi and hapū?
6. How can long term planning for infrastructure better account for the timing of managed retreat?

12 Managed retreat and business

Many businesses will be adversely affected by climate change although some may benefit. Climate change can impact businesses directly and through consequential cascading risks. Climate risks can compound with other business risks including physical, regulatory, market and reputational risks.

Relocation may be forced on businesses where one or more risks makes the situation intolerable. This can occur when severe damage occurs to physical structures, productive land or crops and/or critical infrastructure. Businesses may also suffer disruption to supply chains, loss of customer base due to community or population dispersal, an increase in insurance premiums or withdrawal of insurance, and difficulty in obtaining or servicing loans.

In this chapter we explore the implications for agriculture, horticulture, fisheries, tourism, banking, insurance and Māori business (which cross cuts the other sectors). Some of these sectors support others exposed to climate risk, such as insurers covering property damage and business disruption, and lenders providing business finance.

Like communities, businesses exposed to climate change may need to relocate. Relocation is costly and there is an open question as to whether business should be assisted or compensated for loss under new managed retreat legislation. Although there is an argument for compensating

businesses, this could also be viewed as market interference. Should businesses be assisted to move because they contribute to the economy and society? Or should they be left to fail, because they are not sufficiently climate resilient, thereby freeing up resources for new enterprises which are? Further questions could also be asked such as whether size (small, medium, large), employee numbers, location and ownership structure matter if businesses were to be compensated or assisted? Also, should iconic brands with high cultural value receive greater support? Should low emitting and clean technology businesses be compensated over others?

Questions for discussion:
1. Should businesses be assisted in managed retreat and if so to what extent?
2. Should a market approach be adopted and businesses be left to fail?
3. How should Māori businesses be supported, if at all?
4. Should small enterprises receive compensation in a similar manner to homeowners (assuming they were compensated)?
5. Should some business sectors be assisted over others, and if so based on what criteria?

13 Conclusions

The impacts of climate change, and the need to move people, buildings and infrastructure out of harm's way, will be a significant challenge for Aotearoa New Zealand over coming decades. Managed retreat will be a fraught and costly process. However, costs should be significantly reduced in the longer term if a well-designed, well-funded and well-managed approach is implemented by government in a timely manner.

This working paper has highlighted some key considerations that will need to be addressed in designing a national approach to managed retreat. Our second working paper will examine the extent to which current law and policy provides an adequate framework and tools to undertake managed retreat at scale.

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1 Introduction



Coastal erosion damaging a house at Haumoana

We are living in a climate changing world. This was highlighted very vividly on 27 January this year when Auckland experienced its wettest day on record, by far, with more than 260 millimetres of rain falling in parts of the city.¹ An entire summer's rain fell in one day. There was extensive flooding of homes, businesses and roads. Numerous cars become stranded in the floodwaters. Land slips moved homes off their foundations and left others teetering on the edge. The domestic and international terminals at Auckland International Airport flooded bringing the airport to a standstill and stranding more than 2,000 travellers in the flooded buildings.² Tragically four people lost their lives. The clean-up will be extensive with more than 1,000 properties in Auckland red or yellow stickered.³ Insurance claims are predicted to hit nearly \$1 billion.⁴

This is not a one off occurrence, In August last year, another 'atmospheric river' dumped more than a meter of rain over Nelson in just four days. Over a 24 hour period more than an entire month's rain fell.⁵ The heavy rain caused the Maitai River to breach its banks, causing extensive flooding and triggering over 350 landslides. More than 200 homes in Nelson were evacuated and many are still uninhabitable. In the Marlborough Sounds the same weather system damaged some 670 kilometres of road. Some roads may not be repaired. As Marlborough Mayor, John Legett observed soon after the event, "life may have to change".⁶

Such weather-related disasters are becoming more commonplace. The previous July, Westport experienced the worst flooding in decades forcing the evacuation of more than 2,000 people. More than 500

houses were damaged, over half the total number in the town.⁷ The insurance payout for the weather event totalled over \$97 million.⁸ Such events raise the question of whether relocation should be considered for such flood-prone towns.

But it is not just flooding that is causing damage. Rising seas are threatening those on the coastal edge. In the Hawkes Bay, for example, over 100 properties are predicted to be lost over the next 20 years due to coastal erosion. The cost of moving them out of harm's way, with associated infrastructure, is estimated to be some \$196 million.⁹

We know that such risks will increase over time. NIWA's recent climate change projections indicate that extreme weather events will become more frequent and intense, there will be large increases in extreme rainfall, and sea levels will likely increase by a further 0.21 metres by 2040.¹⁰

Such changes in the climate are placing more and more humans and other species in harm's way. The 2020 National Climate Change Risk Assessment highlighted the significant risks to social cohesion and community wellbeing from the displacement of individuals, families and communities due to climate change impacts. Coastal ecosystems are also at risk from ongoing sea-level rise and extreme weather events as are government finances and the stability of the financial system.¹¹

Māori are particularly susceptible to a climate changing world which threatens their connections to land and ecosystems.¹² Through whakapapa, as well as language, stories and traditions (such as karakia, whakatauki, pūrākau, waiata and mātauranga), Māori strongly identify with landmarks such as maunga/mountains and awa/rivers. They maintain their connection with place through activities such as visiting their marae or swimming in their awa. The loss of such places can undermine a sense of identity as well as threaten the health and wellbeing of Māori communities.

In 2020, the Government proposed a new piece of legislation to address this unprecedented challenge, the Climate Adaptation Act. This Act is intended to address the complex and distinctive issues associated with managed retreat such as funding, compensation, land acquisition, liability and insurance. It is thought to be needed because other legislation, such as the proposed new Natural and Built Environment Act and Spatial Planning Act, and the existing Public Works Act, do not adequately provide the required tools to move people and infrastructure out of harm's way.

The Ministry for the Environment (MFE) produced a consultation document on managed retreat in April 2022¹³ and Government is expecting to introduce a Climate Adaptation Bill into Parliament by the end of 2023. The Environmental Defence Society's (EDS) *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future Project* is developing recommendations for the content of the new Climate Adaptation Act. The project commenced in June 2022 and will produce three working papers followed by a final synthesis report in December 2023.

This working paper, the first in the series, has a focus on conceptualising managed retreat and exploring what principles might underpin a new system and how it might be funded. Working Paper 2 will focus on describing and evaluating the adequacy of current law, administrative arrangements and the rights-based system applicable to managed retreat. Working Paper 3, the final in the series, will present a series of options for incorporation into the new statute to address gaps in the current system. The final report will contain concrete recommendations for the design of the Climate Adaptation Act.



Dune erosion at Pukehina Beach

The working papers are designed to seek feedback on work in progress as we develop up ideas for incorporation into the final synthesis report. This working paper seeks constructive feedback on what the purpose of managed retreat should be, what principles should underpin it, and to what extent funding support should be provided to those affected.

Some material in this paper has been drawn from a report prepared for EDS by Professor Jonathan Boston titled *Designing a Public Compensation Scheme for Private Property Losses: Policy Issues and Options*. That report has been published in full along with this Working Paper and is available on the EDS website (www.eds.org.nz). We encourage readers to refer to Professor Boston's report for a fuller account of relevant considerations when designing a public compensation scheme for the managed retreat of residential property.

The structure of this working paper is as follows:

- *Part One* sets the context for managed retreat. It explores what managed retreat is and the differences between unmanaged retreat, managed retreat and transformational retreat. It then examines why we might need to undertake managed retreat and what the potential

costs might be. Finally, it reviews the country's experience with managed retreat to date.

- *Part Two* explores what the purpose of managed retreat might be in Aotearoa New Zealand as well as different worldviews and a range of principles that might underpin managed retreat policy and law.
- *Part Three* explores the issue of compensation for the loss of residential property. It examines why such compensation might be needed, how it has been provided in other countries, how a public compensation scheme might be designed for Aotearoa New Zealand and how it might be funded. It also explores how additional funding support could be provided to Māori communities.
- *Part Four* explores the impacts of climate change and managed retreat on other sectors including nature, infrastructure and business.

We have not included a separate section on the impacts of managed retreat on Māori but have sought to integrate relevant material throughout the working paper. The project team is further exploring impacts of climate change on Māori through a series of case studies, which will be reported on in subsequent working papers, and which will help inform the design of our final recommendations.

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2 What is managed retreat?



Dune erosion at Buffalo Beach, Whitianga

In Part One of this Working Paper we explore the concept of managed retreat, why we might need to contemplate it in Aotearoa New Zealand, what it might cost and what the experience of managed retreat in the country has been to date.

Managed retreat is an adaptation response to climate and other hazard risks. Simply put, it involves the “purposeful, coordinated movement of people and assets out of harm’s way”.¹ Managed retreat is one of a range of possible adaptation responses to known risk. Other potential responses include: avoiding the risk in the first place, such as by preventing new development in risk prone areas; reducing the risk (at least in the short term) by creating soft or hard defences to coastal erosion and flooding; and accommodating erosion/flooding events through such measures as raising the floor levels of buildings or building floodwater detention facilities (see Figure 1). Such responses are closely inter-related. For example, building seawalls may serve to delay the need for managed retreat by some decades, and avoiding development in risk prone areas in the first place may avoid the need for managed retreat entirely. It is therefore important to consider managed retreat in the context of other potential adaptation responses.

From an ecological perspective, the adaptation response which is adopted in the face of climate and other risks is particularly significant. A resort to hard protection structures such as sea walls, groynes and breakwaters will often result in ‘coastal squeeze’ or adverse effects on indigenous species, ecosystem functioning and associated ecosystem services. It can

also serve to raise community expectations around the provision of hard protection in the future. Many effects will be irreversible in practice, as the cost of fully rehabilitating areas impacted by hard structures will likely be prohibitively high.

Protective structures like seawalls, stopbanks and groynes have adverse effects on the natural environment. The use of *nature-based methods*, also known as ‘living shorelines’ or ‘natural flood management’, that utilise the protective services of coastal and riparian vegetation and ecosystems, can provide an alternative hazard risk reduction strategy that creates biodiversity and recreational co-benefits.² In appropriate conditions, nature-based methods can be a cost-effective alternative to traditional hard protection structures.³ Where protective structures cannot be avoided, biodiversity can still be supported by incorporating habitat into the structure or using hybrid protective approaches.⁴

The longer a hard structure is in place, the more costly and difficult it will be to rehabilitate the site once the structure is no longer functional. In addition, the longer adaptation is delayed, the less likely that alternative ‘soft’ shore protection methods or opportunities for nature will be viable. Alternative or interim protection methods, such as nature-based or living shorelines (where nature can be utilised for both biodiversity and

increased hazard mitigation services) are more likely to succeed when implemented early and where there is sufficient accommodation space.⁵

Avoid	Protect	Accommodate	Retreat
Prevent new development in risk prone areas	Reduce risk through measures such as dune restoration and building seawalls	Reduce potential damage such as by raising the floor level of buildings	Move people and infrastructure away from risk prone area

Figure 1: Types of adaptation responses

2.1 Unmanaged retreat

Retreat from risk does not necessarily need to be ‘managed’ as such. Episodic retreat in response to seismic events, flooding and other natural hazards has been an ongoing feature of human civilisation for millennia. People and property have typically only relocated after a significant natural disaster has occurred, rather than pre-emptively. In many such cases retreat has been unplanned, unmanaged and uncoordinated.

When public authorities take a hands-off approach to retreat, individuals are left to make their own decisions as to whether and when to move, and they bear the costs of those decisions. People will make different decisions dependent on varying personal circumstances and perception of risk. Some may voluntarily relocate early on. Some may stay put as they are attached to place and/or can’t afford to move. Some may seek to construct hard engineering structures to delay relocation. Others might wait it out until the insurance industry retreats or their insurance premiums reaches an unacceptable cost threshold and/or damage to property becomes too costly. Due to the uncoordinated nature of unmanaged retreat, the process unfolds in an ad hoc manner over time. Increasing damage gradually prompts more people to move.

On the face of it, unmanaged retreat can appear an attractive option as it allows individuals and communities (including Māori communities) to make their own decisions and avoids interference with private property and Māori land rights. Unmanaged retreat also enables public authorities to avoid politically fraught decision-making processes and the considerable costs of moving people and infrastructure.

Unmanaged retreat, however, can result in considerable inequities with those who cannot afford to move being trapped in an increasingly high risk

environment. Unmanaged retreat may also be coupled with a laissez faire approach towards development, allowing new houses to be built in hazard zones (on the basis of a ‘buyer beware’ approach), thereby increasing the amount of development and thus people and property ultimately facing risk.

2.2 Managed retreat

In contrast, managed retreat is a deliberate and intentional process. It is publicly authorised, planned and coordinated. Managed retreat is anticipatory, long-term and forward-looking. The aim is to reduce natural hazard risk permanently rather than temporarily – or, to quote MFE “to reduce or eliminate exposure to intolerable risk”.⁶ Managed retreat is variously referred to as ‘planned relocation’, ‘planned resettlement’, ‘community-led relocation’ or ‘phased abandonment’.⁷ Closely related is the term ‘managed realignment’, denoting the controlled inundation of coastal areas to create natural defences and address biodiversity loss. Setting back the line of defence does not necessarily involve the movement of people or communities, but often involves the retirement of land.⁸

The Government’s National Adaption Plan defines managed retreat as “the purposeful, co-ordinated movement of people and assets (eg, buildings and infrastructure) away from risks. This may involve the movement of a person, infrastructure (eg, building or road) or community. It can occur in response to a variety of hazards, such as flood, wildfire, or drought.”⁹

Managed retreat will likely entail the movement, not only of people, buildings and infrastructure, but also of cultural and historic sites. It will almost certainly involve the relinquishing of urban and agricultural land. And importantly, it should also accommodate the needs of indigenous species, enabling them to move in response to climate change and restoring their habitat in areas vacated by humans.

Due to the high cost, significant level of disruption and political difficulties involved, managed retreat is often considered to be the last resort. But this should not necessarily be the case. If done well, managed retreat can offer many positive outcomes. These include enabling the construction of new, better and more resilient communities – with energy efficient homes and buildings and more robust, climate-proof infrastructure. The relocation of rural Māori to more productive and lower risk land and housing, for example, could improve health and well-being for whanau.

Managed retreat will likely be costly, complex and controversial. Many residents and communities in vulnerable locations will be reluctant to relocate, not least because of limited financial means and strong attachments to place. However, relocating people prior to damage occurring is likely to be financially cheaper, less risky, less disruptive and less socially harmful than relocating people following a major damaging event.

Managed retreat can also provide benefits for the natural environment, particularly if the needs of non-human species are recognised as an integral consideration in planning for human relocation and resettlement. Moving people and structures can create more space for nature. In turn, creating more space for nature can reduce the ongoing risk for those who remain. In a broader sense, managed retreat could help reconfigure the relationship between humans and nature. Siders et al note “it is possible that surrendering to nature could inspire a positive reconnection with nature in new ways”.¹⁰

Making room for the rivers, the Netherlands

The Room for the River Programme in the Netherlands has focused on partially restoring the natural floodplain of rivers to better protect other settlement areas downstream. The programme involved buying up agricultural land to convert to floodplain areas as well as building new infrastructure (such as houses for those moved from floodplains) and riverfront developments for affected communities. As well as reducing flood risk it has improved the overall environmental quality of the river areas.¹¹

Expanding wetland areas, New Jersey, USA

The Blue Acres Programme in New Jersey, USA, which was developed in response to repeated flooding events, offers to buy back properties at risk of flooding. The scheme prioritises groups of properties that are located close to existing wetland areas or that could provide significant flood storage for the remaining community. It requires clusters of homes to be purchased at the same time, rather than individual properties, in order to create interconnected restoration areas.¹²

2.2 Transformational retreat

‘Transformational retreat’ is a term used when positive societal and environmental outcomes are actively sought as part of a managed retreat process. It recognises that climate change adaptation should not only improve the resiliency of critical systems (such as housing and infrastructure), but also address the socio-economic factors that affect how climate-related hazards impact individuals and communities. This frame on managed retreat also seeks out opportunities to achieve biodiversity gains. There is growing international consensus that climate change is interconnected with biodiversity loss and that adaptive responses such as managed retreat should consider how best to address both crises at the same time.

Under a transformational retreat approach, the purpose would go beyond relocation of people, assets and activities to also address social inequalities,¹³ enhance and restore ecosystems¹⁴ and strengthen democracy.¹⁵ Dundon and Abkowitz note that there are positive co-benefits that can be generated such as restoring fragile coastal ecosystems.¹⁶ A transformational retreat approach places these matters at the forefront of the planning process, rather than being treated as incidental benefits.¹⁷

2.3 Components of managed retreat

Managed retreat can be viewed as a linear process with at least seven identifiable stages (see Figure 2). The actual staging, timing and sequencing will differ according to geographical, social-cultural and political dynamics as well as the availability of funding.



Transformational retreat includes a focus on the restoration of coastal and floodplain habitats, including dune systems as shown here at Piha

Stage	Groupings	Elements
Iwi/hapū and Community Engagement	Engagement	Provision of data and information Participation and/or consultation on managed retreat process and outcome
Planning and Preparation	Planning	Risk assessments Environmental, ecological, cultural and social opportunities identified Option analysis Plan/rule change Planning for relocation Planning for realignment of ecosystems/nature Placing restrictions on rebuilding and development Planning to optimise co-benefits and opportunities
	Monitoring	Developing a monitoring framework Establishing thresholds and triggers
Enabling Investment	Property acquisition and investment (buy outs and lease backs)	Property acquisition offers and negotiations
	New community investment	Acquisition of alternative land for relocation Development of new community facilities
	Public infrastructure level of service reduction	Reduction in maintenance of public infrastructure
Active retreat	Public infrastructure and structure relocations	Replacement/redevelopment of public infrastructure elsewhere Relocation of critical facility structures (schools, hospitals) Relocation/replacement of community facilities (halls, parks)
	Privately owned infrastructure	Private companies begin to reduce/remove/relocate their infrastructure
	Private property relocation/abandonment	Relocation of/abandonment of residential and commercial property Provision of temporary housing
	Removal of protective structures	Removal of seawalls, floodbanks, groynes etc
	Ecosystems and nature	Realignment or relocation of species, habitats and associated ecological and biophysical processes
Clean up	Clean up	Demolition and removal of buildings and infrastructure Decommissioning of hazardous sites and landfills
Resettlement	Resettlement	Provision of social services to ensure communities have adjusted Job transition funding
Post-retreat land management and repurposing	Retreat land	Land rehabilitation Land maintenance Habitat restoration and enhancement Ongoing monitoring, reporting and evaluation

Figure 2: Components of managed retreat¹⁸

Managed retreat may also be required for reasons unrelated to climate change such as when major seismic events or volcanic eruptions occur. Accordingly, any policy framework for managed retreat should be designed with a range of possible applications and contexts in view.

2.4 Aotearoa New Zealand’s experience with managed retreat

Aotearoa New Zealand has witnessed increasing instances of managed retreat over recent decades.¹⁹ Most cases have been relatively small, involving only a few properties, but some have involved over a hundred properties including Twin Streams in West Auckland²⁰ and the RiverLink Project in the Hutt Valley.²¹ By far, the largest example of managed retreat in the country occurred in Christchurch following the major 2010-11 earthquakes. Significant areas of the city were ‘red-zoned’ indicating that houses could not be rebuilt, with red-zoning affecting close to 8,000 properties. More than 20,000 people were relocated.²²

Most cases of managed retreat in Aotearoa New Zealand have occurred after a disaster, with pre-emptive retreat being much less common. In some cases, retreat can be both post-event and pre-emptive. For example, in Matatā managed retreat was undertaken after property damage had occurred, but was designed to remove people from an area where there was future flooding risk.²³ In almost all cases, public authorities have sought to acquire affected properties on a voluntary basis, although there has been an implicit threat of compulsory acquisition in some cases. Where properties have been acquired, the owners have usually been compensated based on their properties’ current market value, pre-disaster rateable value or similar.

Some communities severely affected by river flooding or coastal erosion/ inundation have been unable to agree on managed retreat as part of a wider process of adaptation. Examples include the Hawkes Bay coastal settlement of Haumoana,²⁴ the coastal settlement of Mākara (near Wellington),²⁵ the small riverine settlements of Waitōtara and Whangaehu (near Whanganui),²⁶ and a riverside suburb in Whanganui.²⁷

Questions for discussion:
1. How should Aotearoa New Zealand’s managed retreat framework be linked to other adaptation responses?
2. When does climate risk become intolerable and to whom?
3. When is managed retreat an appropriate response to risk as opposed to unmanaged retreat?
4. When should the public interest in pre-emptive retreat override individual preferences?
5. Should Aotearoa New Zealand’s managed retreat framework focus only on reducing risk or should it be more transformative?
6. What opportunities are there to improve environmental, social and cultural outcomes through managed retreat?
7. What can we learn for Aotearoa New Zealand’s experience with managed retreat to date?

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3 Why we need managed retreat and what it will cost

Flooding in Westport July 2021 (NZ Defence Force)

3.1 Climate risks

Global greenhouse gas emissions are increasing. Atmospheric concentrations of CO₂ are higher now than at any time during the past two million years.¹ Concentrations of methane are also rapidly rising. Global mean surface temperatures are currently around 1.1°C higher than during the latter half of the 19th century and are set to further increase.² Extreme temperatures are more frequent and intense, increasing storm events which cause flooding.³

For a coastal nation like Aotearoa New Zealand, projections for sea level rise are of considerable concern. The average rate of global mean sea level rise almost tripled between 1901-1971 and 2006-2018 to around 3.7 millimetres per annum.⁴ By 2150, the projected rise is 0.37-0.86 metres under a very low emissions scenario, and as much as 0.98-1.88 metres under a very high emissions scenario.⁵ A much larger rise in sea level, approaching 5 metres by 2150, cannot be ruled out due to considerable scientific uncertainty about ice-sheet processes.

There will also be changes in wind and wave regimes, as well as storm frequencies and magnitudes, as a result of climate change.⁶ Subtle shifts in these coastal drivers, in tandem with sea level rise, may lead to substantial changes in shoreline erosion and inundation.⁷

On a global scale “extreme sea level events that occurred once per century in the recent past are projected to occur at least annually at more than half of all tide gauge locations by 2100 (*high confidence*)”.⁸ To compound matters, “the combination of more frequent extreme sea level events (due to sea level rise and storm surge) and extreme rainfall/riverflow events will make flooding more probable (*high confidence*)”, especially in coastal cities.⁹ In short, climate change will generate many compounding and cascading risks.

Aotearoa New Zealand has the 9th longest coastline in the world, at around 15,000 kilometres, and will therefore likely be disproportionately affected by sea level rise.¹⁰ Many people live within a few metres of high spring tide, with significant amounts of public infrastructure (including roads, railway lines and water services) located on the coast.

Many coastal areas are also subject to vertical movement due to tectonic plate activity, impacting the extent of sea level rise.¹¹ In some areas, where the land is rising, the impacts will be moderated. But in other areas, sinking of the land will make things much worse. About 40 per cent of Aotearoa New Zealand's coastline is subsiding, particularly along the lower North Island and upper South Island¹². For example, the Wairarapa coastal settlements of Castlepoint and Riversdale are sinking at a rate of around 3.77 and 4.67 millimetres per year respectively, which is likely to lead to a net one-metre rise in sea level by 2100.¹³

The cumulative impacts of climate change mean that major flooding, mud flow and coastal erosion events in Aotearoa New Zealand will increase in frequency and intensity. The country is particularly vulnerable due to most major cities, as well as numerous towns and other settlements, being built on floodplains or on the coast.¹⁴

Currently a 1-in-100 year flood could affect close to 20,000 km² of land and over 675,000 people and 400,000 buildings. Also at risk are some 20 airports, including the Auckland and Christchurch international airports; major industrial developments such as the Tiwai Point Aluminium smelter, Marsden Point Oil Refinery and Taranaki Methanex methanol production facilities; and major roads, railway lines and electricity transmission lines.¹⁵ With a changing climate, what are currently 1-in-100-year events will become much more common.

Many recreational, heritage, cultural and ecological assets are also at risk from climate change impacts. For example, 4,149 archaeological sites, 300 of the Department of Conservation's coastal assets (including campgrounds and bridges), and more than 350 sites where the Department manages ecosystems or specific indigenous species, are threatened with coastal flooding due to sea level rise.¹⁶ Coastal ecosystems are particularly vulnerable to climate change impacts due to the legacy of habitat degradation caused by coastal development.

3.2 Risks for Māori

The adverse impacts of climate change, especially sea level rise, have significant implications for Māori land and the many rights and interests of iwi/hapū.¹⁷ In some cases, the impacts will affect land transferred to iwi/hapū via settlements negotiated under Te Tiriti o Waitangi. Much of the whenua returned to iwi under Treaty settlements has land title, settlement acts and other encumbrances which restricts the ability to move marae complexes and associated assets to new sites.

Of the almost 800 marae in the country, around 80 percent are located in low-lying coastal areas or near flood-prone rivers.¹⁸ Of these, almost 200 are within one kilometre of the coast, and several dozen are likely to be vulnerable to sea level rise during the remainder of this century. In addition, a range of other valuable cultural assets will be at risk from climate change including Māori burial sites, mahinga kai, hunting sites and places of historical significance. Losing access to such sites can threaten important cultural and spiritual linkages.

Climate change will also create risks for the Māori business economy as Māori are heavily invested in the primary sector including forestry, fishing, agriculture, horticulture and farming.¹⁹

3.3 Potential costs

Climate change will undoubtedly impose significant direct and indirect costs on society. These costs are slated to escalate significantly as the century advances, and they will fall unevenly geographically and socially.

In terms of Aotearoa New Zealand's vulnerability to sea level rise, it has been estimated that each 10 centimetre rise in sea level will put at risk an additional 7,000 buildings (with a replacement cost of around \$2.4 billion), 133 kilometres of roads and 10 kilometres of railway line.²⁰ With half a metre of sea level rise, around 36,000 buildings, 350 km² of land and close to 50,000 people will be put at risk of flooding during extreme events.²¹ Sea level rise of a metre will have significantly greater impacts, exposing buildings valued at around NZ\$25 billion to coastal inundation.²² These estimates exclude the wider costs of climate change arising from more severe droughts, floods, fires and storms, along with the costs of consequential global supply-chain disruption, increased geopolitical tensions and large-scale internal and external migration.

Estimating the likely scale of managed retreat in the face of such risks is extremely difficult as there are numerous uncertainties. They include the path of global greenhouse gas emissions over the next 50 to 100 years, the pace of sea level rise, and the extent of vertical land movement in vulnerable coastal areas. In addition, it is unclear the extent to which councils will be successful in adopting an 'avoid' strategy, by preventing further development in potentially hazardous areas. Also uncertain is the level of investment in new or improved protective structures (through a 'protect' strategy) and their effectiveness in limiting coastal erosion, inundation and flood damage.

Given these uncertainties, it is challenging to estimate the likely *annual* costs of managed retreat in future decades, let alone the possible *cumulative* costs by specific dates. One estimate concluded that annual costs should be under 1 per cent of the country's GDP (which was around NZ\$350 billion in 2022) over the next few decades. Later in the century, they may exceed this level, depending on the pace of economic growth, the success of adaptive responses, and global mitigation efforts.²³ Such

costs associated with managed retreat are but one of the many costs that climate change will generate.

The most significant financial impacts will almost certainly be experienced by property owners. Many of these will be homeowners, with a home ownership rate in Aotearoa New Zealand of around 65 percent.²⁴ Owner-occupied dwellings, and other privately-owned real estate, account for 43 per cent of total household assets.²⁵ This means that the loss of a home due to managed retreat could have a profound impact on the net worth of many households.

Aside from the direct loss of land, buildings and infrastructure, many other costs will be incurred as a result of managed retreat. These include:

- Renters having to move
- Disruption to businesses activities
- Negative impacts on the activities and assets of iwi/hapū, community and religious organisations and the providers of childcare, education, health care and social services
- The loss of many cultural and historical treasures, along with places of spiritual, aesthetic and recreational value
- The loss of neighbourly and community relationships
- The loss of indigenous species, ecologically significant habitats and associated ecosystem services.

Few losses associated with managed retreat are likely to be covered by insurance. Under current insurance arrangements, property owners are generally not covered for losses consequential to managed retreat, unless retreat is undertaken after property damage occurs (such as with the Christchurch red zone properties). Costs faced by those in rental accommodation (who will face moving costs as well as potentially steeper rentals and greater transport costs in their new location) are not covered by insurance. A proportion of affected commercial enterprises may have business interruption insurance but this may not cover disruption due to managed retreat.

There will also be many other costs that will be borne by public authorities. They include the costs of planning and administering large-scale relocations (including undertaking risk assessments, evaluating options, planning new settlements, conducting extensive public consultations, negotiating with property owners and covering legal fees). Demolishing and removing at-risk buildings and infrastructure will also be expensive (noting that the cost of demolishing buildings in the Christchurch red-zones is estimated to have exceeded NZ\$1 billion).²⁶ There is also the cost of rehabilitating the abandoned land and replacing or enhancing the resilience of public infrastructure.

Losses will occur, in any event, if things are left to take their course in the absence of a managed retreat strategy. Managed retreat is effectively a cost or loss mitigation strategy.

In Australia it was estimated that \$1 spent on risk reduction was likely to save at least \$3 on future disaster costs by avoiding losses and disruption.²⁷ Other international estimates of the likely savings are substantially higher.²⁸

Questions for discussion:
1. In what circumstances is managed retreat the best response to growing climate risks?
2. How can the rights and interests of iwi/hapū best be protected during managed retreat processes?
3. What costs of managed retreat need to be considered?
4. To what extent can insurance cover part of the costs?
5. Who should be responsible for which costs?
6. How do we value non-tangible values such as amenity and cultural sites of significance?
7. When is managed retreat the most cost effective approach in the long term?

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Part 2: Key principles underpinning managed retreat

4 Worldviews underpinning approach to managed retreat



Waka taua, Ngāti Paoa

In this part of the Working Paper we consider what worldviews might underpin Aotearoa New Zealand's approach to managed retreat and what principles might be applied to its policy design. In doing so we reflect on the set of objectives and principles for managed retreat legislation and funding proposed by MFE in its Consultation Document (see Figure 3 below).

MFE's proposals beg the question: what is the overall purpose of managed retreat in Aotearoa New Zealand? What outcomes should managed retreat be trying to achieve? MFE's Consultation Document does not propose a purpose or any objectives for managed retreat per se, but it does propose objectives for managed retreat legislation and funding respectively. The legislation objectives focus on providing clarity and tools rather than seeking any specific outcomes. The funding objectives indicate a minimalist approach where hardship to those affected by climate change is to be "reduced" while also reducing the liabilities of the Crown (thereby potentially placing more of the considerable costs of managed retreat onto other parties). It is somewhat unclear how these two (and at least partially conflicting) imperatives will be achieved at the same time.

Others have proposed explicit purposes for managed retreat. For example, Hanna et al suggest that its purpose is to "remedy unsustainable land use patterns that expose people, ecosystems, and assets to significant natural (and socio-natural) hazard and climate induced risks."¹ The Georgetown Climate Center has proposed that "The aim of managed retreat is to proactively move people, structures, and infrastructure out of harm's way before disasters or other threats occur to avoid damage, maximize benefits, and minimize costs for communities and ecosystems."²

As part of this project EDS will be developing a purpose statement for managed retreat. Some directions for such a purpose statement can be drawn from the worldviews and principles discussed in the following chapters. We welcome input into what such a statement should contain.

Question for discussion:

1. What should be the purpose(s) of managed retreat in Aotearoa New Zealand?

Managed retreat legislation	Funding responsibilities
OBJECTIVES	
• To set clear roles, responsibilities and processes for managed retreat from areas of intolerable risk • To provide stronger tools for councils to modify or extinguish existing uses of land • To provide clarity on tools and processes for acquiring land and related compensation • To clarify local government liability for decision-making on managed retreat, and the role of the courts • To provide clear criteria for when central government will intervene (or not) in a managed retreat process	• To reduce hardship due to the impacts of climate change • To incentivise better long-term investment decisions concerning climate change risk • To reduce liabilities, including contingent liabilities of the Crown • To support the role of banking and insurance in facilitating risk management
PRINCIPLES	
• Managed retreat processes are efficient, fair, open and transparent • Communities are actively engaged in conversations about risk and in determining and implementing options for risk management • Social and cultural connections to community and place are maintained as much as possible • There is flexibility as to how managed retreat processes play out in different contexts • Iwi/Māori are represented in governance and management and have direct input and influence in managed retreat processes, and outcomes for Iwi/Māori are supported • Protection of the natural environment and the use of nature-based solutions are prioritised	• Limit Crown's fiscal exposure • Minimize moral hazard • Solutions are designed to be as simple as possible • Ensure fairness and equity for and between communities, including across generations • Minimize cost over time by providing as much advance notice as possible • Solutions support system coherence and the overall adaptive system response • Risks and responsibilities are appropriately shared across parties including property owners, local government, central government, and banks and insurance industries

Figure 3: MFE's proposed objectives and principles for managed retreat³

Worldviews are a system of meanings that help us make sense of our relations with the human and non-human world. It is through worldviews that we can orient ourselves. Legal and ethical principles are underpinned by worldviews and have implicit moral assumptions. Before discussing potential principles to underpin managed retreat law and policy, we explore different worldviews that can help inform these; market liberalism, te ao Māori, eco-centrism and a hybrid worldview drawing elements from each of the other three approaches.

4.1 Market liberalism

Market liberalism is an anthropocentric approach based on the principles of personal liberty, private property and limited government interference. Classical liberalism emphasises liberty from government regulation and asserts that self-interest is a basic component of human nature. It claims that by each individual pursuing his or her own interests, the best interests of society are served overall. Classical liberalism posits that government is not able to improve on a free market so should confine itself to protecting property rights, enforcing contracts, providing public goods and maintaining internal and external security. Government intervention should only occur in specific instances of market failure or where market imperfections create barriers to private investment.

A focus on the primacy of the market is reflected in a recent International Monetary Fund document on economic principles for climate adaptation which states, “in perfectly competitive markets (complete structure of property rights, atomistic participants, complete information, and no transaction costs), individuals and firms are expected to adapt efficiently ... these markets are hypothetical constructs, but they provide a useful benchmark to develop a theory of government intervention”.⁴

Market imperfections can occur when risk is not reflected in returns which can lead to private sector under-investment in the provision of public goods. For example, an insurance company may decline to provide cover for properties threatened by sea level rise because the level of premium that property owners can afford does not cover the risk to the company. In such situations, government could step in to subsidise insurance premiums so insurance cover remained available.

Another example of a market imperfection is where companies fail to undertake long-term investments in risk reduction measures because only short-term finance is available from lenders. This might prompt government to intervene in the lending market. Such an approach is reflected in MFE’s proposed objectives for funding responsibilities which include “to incentivise long-term investment decisions concerning

climate change risk” and “to support the role of banking and insurance in facilitating risk management”.⁵

Market imperfections also occur when critical information is unavailable to market players. In such cases, government might seek to raise the knowledge and awareness of private actors. The assumption here is that if information about risks is freely available, property prices will adjust, and individuals will voluntarily move rather than invest sub-optimally in protective structures. This approach is reflected in an additional principle proposed by MFE for funding responsibilities which is to “minimise cost over time by providing as much advance notice as possible”.⁶

Adopting a market liberalism approach to climate adaptation would favour ‘unmanaged’ as opposed to ‘managed’ retreat as the preferred option. This is because it would leave the individual property owner in the driving seat. Elements of a market liberalism approach can be seen in MFE’s proposals which position central government as not *leading* managed retreat but *sharing* responsibility with a range of other actors including local government, iwi/Māori, affected communities, individuals and businesses.⁷ MFE’s Consultation Document states that “central government may need to be involved, for example where a large area is facing a particular urgency, or there is significant hardship”. However, it goes on to emphasise that “this does not mean that it is appropriate for central government to fund managed retreat processes or local infrastructure”.⁸

The main drawbacks of a market liberalism worldview are its many assumptions that do not reflect real world circumstances. These include that market efficiency leads to optimal social and environmental outcomes and economic motivations solely guide human behaviour. Humans are reduced to market participants and nature is reduced to a service or ‘solution’ for humans. The individualistic approach of market liberalism is also at odds with a te ao Māori worldview and the principle of social solidarity or risk pooling.

A future managed retreat system could be based on market liberalism where individual choice and action is prioritised as the optimum response ahead of government intervention.

4.2 Te ao Māori

Te ao Māori emphasises the importance of relationships between nature and people. It is a holistic worldview that is focused on interconnections. Te ao Māori is grounded in mātauranga Māori and Māori principles such as tikanga (ethics), he tāngata (wellbeing), mana whakahaere (empowerment),

kaitiakitanga (guardianship), manaakitanga (care for persons), mahitahitanga (treat others as equals) and wairuatanga (spirituality).

Through the lens of te ao Māori, the material and physical elements of managed retreat have their own whakapapa and wairua; they are valuable beyond the economic dimension and are critical to expressions of mana and kaitiakitanga. Such elements are centred in place and specific sites. They carry strong associations and significance that cannot be disentangled from the context in which they are given expression.

A maataapono (principle) in the Ngaa Rauru Kiitahi climate change strategy *Whakatupuria te Kawa Ora* “acknowledges our cultural values embedded in our ancient teaching as a way forward into the anticipated climate future”.⁹ The Strategy outlines the interconnectedness between physical and spiritual domains in that all life forms are related (as defined through whakapapa) and must be balanced. When this balance is disrupted the wellbeing of land and the wellbeing of people fall into decline.¹⁰

The current approach to managed retreat is not informed by a te ao Māori worldview,¹¹ which would see its objectives and principles redrafted from a place of rangatiratanga, with tikanga as the guide.¹² Adopting a te ao Māori worldview would mean moving from an approach where Māori interests are narrowly confined to ‘cultural’ concerns, to a situation where collaborative governance occurs on an equal footing with the Crown from the outset.

Such an approach is partly reflected in the proposed principle for managed retreat set out in MFE’s Consultation Document that “Iwi/Māori are represented in governance and management and have direct input and influence in managed retreat processes, and outcomes for Iwi/Māori are supported”.¹³ A prerequisite to such a ‘tika’ approach¹⁴ is the availability of funding to build capacity in the rangatiratanga ‘sphere’, so it becomes of equal strength to kawanatanga in decision-making, and so that Māori have adequate resources to fulfil their kaitiaki obligations.

A future managed retreat system could be based on te ao Māori where nature and humans are recognised as interconnected and Māori have a strong governance and stewardship role.

4.3 Eco-centrism

Eco-centrism sees nature as holding interests and rights that should be recognised and defended. Humans are just one species amongst many and their role is to speak for and guard the rights of other species. Broader nature-focused approaches extend rights and dignity to non-living aspects such as geological features.

Eco-centrism can be criticised on a number of grounds. Inherently it reflects human values rather than the value of nature itself; after all, rivers cannot speak so humans must attribute words to them. Additionally, nature’s rights often conflict with human desires for progress and development, and the approach fails to recognise human relationships with nature.

From an eco-centric lens, managed retreat would recognise the right of nature to exist and co-evolve with humans in shared habitats. This would require humans to relinquish some land to create room for habitats and species to move inland as sea level rises. In the planning and design phase of managed retreat, the needs of nature would be considered alongside human needs, and opportunities to provide benefits to nature would be identified up front.

The current system of managed retreat does not reflect an eco-centric worldview. MFE’s Consultation Document has one principle that mentions nature, stating that “protection of the natural environment and the use of nature-based solutions are prioritised.”¹⁵ This echoes an anthropocentric view where nature is used to provide ‘solutions’ for humans, rather than being seen as having rights and interests on its own account.

A future managed retreat system could be based on eco-centrism where nature is recognised as having intrinsic value alongside humans, not just as serving human needs to reduce risk.

4.4 Hybrid worldview

A hybrid approach in which aspects of te ao Māori, market liberalism and eco-centrism underpin a managed retreat approach for Aotearoa New Zealand could potentially be developed. However there are tensions between these approaches that warrant further thought.

To start with, elements of market liberalism appear inherently incompatible with te ao Māori. A liberalist worldview is based on objectifying and separating things which are priced by the market. In

contrast, under te ao Māori, whakapapa frames the world as “an all-embracing network in which all life is included”.¹⁶ In a managed retreat system based on strong market liberal principles, risks are priced, and short-term imperatives placed ahead of long-term concerns. This can be at odds with a worldview that sees people and nature connected genealogically and intergenerationally. Market liberalism is also poor at capturing non-economic risks, such as risks to wāhi tapu or sites of significance that have complex cultural and spiritual values.

In turn, the anthropocentric aspects of both te ao Māori and market liberalism could create tensions with an eco-centric worldview. Te ao Māori is more compatible because the environment is seen as interconnected with the wellbeing of people, whereas market liberalism is only interested in improving human development. The difference between eco-centrism and te Ao Māori lies in the hierarchy. The intrinsic value of nature is put first in eco-centrism whereas te ao Māori sees human wellbeing as the central nodal point that is connected to the health and wellbeing of other species.

As a result of such tensions, adherence to all three worldviews may not be feasible or beneficial. For example, maximising financial benefits under a liberal market approach might prevent the social and ecological goals

of a transformative, just managed retreat to be achieved. Therefore, rather than determining which worldview to adopt or reject, it may be more useful to contemplate which direction we should head in and how complementarities between the different worldviews can evolve along that pathway. Combining elements of different worldviews can still create tensions, but it is important that these are rendered visible, so policy can fairly and equitably address them.

The normative basis of a future managed retreat system could be one in which complementarities are found among market liberalism, te ao Māori and eco-centrism.

Questions for discussion:

1. What worldviews should underpin Aotearoa New Zealand's approach to managed retreat?
2. Should we seek to combine elements of different worldviews?
3. How should we best manage tensions between different worldviews?



An eco-centric worldview would extend rights to nature and natural systems such as the Whangapoua estuary shown here

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5 Principles which could be applied to managed retreat policy



Living on the edge at Clarks Beach

Worldviews are operationalised through legal and ethical principles. In the following we explore different principles that could underpin a future managed retreat system. These draw on what is reflected in current legislation, proposed reforms, international and local case studies and managed retreat literature. It is not possible here to delve into every approach, or to consider all their implications for managed retreat. What follows is a selective and summary account of the principals we consider to be the most relevant in the context of managed retreat, and their various strengths and weaknesses (see Figure 4 for summary). Each is variously underpinned by the worldviews previously discussed.

There is a wide spectrum of principles from substantive to procedural, all of which interact with one another. Substantive principles seek to guide the outcome or are goal orientated. They can address social, cultural, environmental and/or justice outcomes. Procedural or process-based principles address how decisions are made and implemented. There are no ideal packages of principles for managed retreat. Like worldviews, specific principles have their pros and cons, and some might be given greater weight than others. The collection of principles in Figure 4 set out the kind of approaches which will need to be considered when crafting managed retreat policy.



Coastal erosion impacting the Clifton Motor Camp

Transformative Principle	Social power and constraints should be transformed to deliver improved outcomes for people and nature
Solidarity Principle	Members of a group should support each other to fulfil mutual rights and obligations
Remedial Responsibility Principle	People who need help should be given assistance
Fair Opportunity Principle	People should not be penalised due to circumstances beyond their control
Least Advantaged Principle	It is important to protect the interests of those who are the least advantaged or have the greatest need
Needs Satisfaction Principle	It is important to meet basic human needs
Intergenerational Equity Principle	Those currently alive have a moral obligation to protect the interests of future generations
Compensatory Justice Principle	Unjustified loss, damage or disruption should be compensated for
Restorative Justice Principle	It is important to repair the relationship between those who have been wronged and those who caused the harm
Comparative Justice Principle	Alike cases should be treated alike
Recognition Justice Principle	It is important to address the underlying causes of inequities
Te ao Māori Principles (Tino Rangatiratanga)	Māori should retain self-autonomy in decision-making over their land and resources
Ecological Justice Principles	Nature should be included in the human community of justice
Conservation Principle	There is a need to protect the ecological integrity and ecological health of natural systems
Ability to Pay Principle	Those who are wealthier have a greater duty to pay than those who are poorer

Beneficiary Pays Principle	Those who receive private benefits from public policy should provide compensation for them
Polluter-pays Principle	Those responsible for causing harm should pay to remedy it
Subsidiarity Principle	Decisions should be made closest to those most affected by them
Procedural Justice Principle	People should have the right to participate in decisions that affect them
Voluntarism Principle	Voluntary action is to be preferred over compulsion
Precautionary Principle	Lack of scientific certainty should not be used as a reason to avoid taking action
Avoid Maladaptation Principle	It is important to avoid unintended negative consequences from decisions

Figure 4 Principles which could be applied to managed retreat policy

5.1 Transformative Principle

The transformative principle focuses on the opportunity to fundamentally shift power relations and socio-cultural constraints that deepen vulnerability to stressors such as climate change. Applied to managed retreat, it recognises the opportunity to achieve deeper social and environmental change ('transformational retreat'). It is closely related to the recognition justice principle in seeking to redress the underlying causes of structural injustices. Such a transformative approach is currently lacking within the existing system and managed retreat proposals put forward by MFE.

A future managed retreat policy could be based on the transformation principle which seeks to deliver improved outcomes for people and nature.

5.2 Solidarity Principle

Solidarity is tied to an 'imagined' community or group, whose members are expected to support each other, in order to fulfil the mutual rights and obligations associated with group membership.¹ It can be expressed vertically, as the 'strong' helping the 'weak', and/or horizontally as the

‘strong’ and the ‘weak’ jointly risk-pooling. The relevant community can be local or global, and span time and space, depending on how it is framed.²

In Aotearoa New Zealand a wide concept of solidarity has been incorporated into institutions and law. It can be seen in how we have responded to natural disasters, conflicts and pandemics. It is reflected in the establishment of the Natural Disaster Fund which provides natural disaster insurance for residential properties which are privately insured. In managed retreat, a principle based on solidarity would imply that property loss due to climate impacts should be viewed primarily as a collective responsibility to be addressed by the state.

There are challenges with adopting a solidarity principle. Arguably the collective may overshadow individual autonomy and intervention by the state on behalf of the collective may exacerbate ‘moral hazard’.

The risk of moral hazard

Moral hazard refers to situations where individuals and organisations increase their exposure to a risk because they do not bear the full costs of the risk. For example, providing public compensation to private property owners affected by managed retreat may increase incentives to build or develop further in high hazard zones. Moral hazard can also occur where there is no state intervention. For example, when individuals bear the full costs of retreating, there is a strong incentive to remain in place and build protective structures, thereby increasing exposure to harm.

A future managed retreat system could be based on a principle of solidarity with government acting as the lead entity on behalf of the collective.

5.3 Remedial Responsibility Principle

Remedial responsibility refers to the widely accepted moral responsibility to assist people who need help because they are seriously deprived, suffering or in danger.³ In the first instance, responsibility to meet a need resides with those who have caused or contributed significantly to the problem. However, where those directly responsible cannot be readily identified, or are unable to help, the principle places the moral duty to act on those most capable of addressing the problem.

The principle of remedial responsibility is highly relevant to the impacts of anthropogenic climate change. The problem has been caused by the actions of multiple people over many decades. Many of those partly responsible are no longer alive. While some individuals and organizations have contributed disproportionately to the problem, seeking effective redress from them is not likely possible. Given this situation, the principle would oblige the state to provide assistance to those without the financial resources to move out of risky areas.

Some of the problems with applying a remedial responsibility principle to managed retreat arise from its framing of the state as the primary entity to plan, fund and deliver managed retreat. This may subvert individual action and responsibility. It may also undermine the autonomy of Māori communities.

A future managed retreat system could reflect the remedial responsibility principle by placing on government the primary duty to assist those who lack the financial resources to relocate out of harm's way.

5.4 Fair Opportunity Principle

This principle states that people should not be penalised, discriminated against, or suffer disadvantage because of circumstances or conditions over which they have no realistic control. It would mean, in the context of designing a public compensation policy for managed retreat, that knowledge of the impacts of climate change, ability to pay, need for compensation, and any responsibility for losses could be taken into account but not extraneous and irrelevant matters.

A future managed retreat system could reflect the fair opportunity principle by ensuring that the criteria applying to any provision of public compensation is fair and reasonable.

5.5 Least Advantaged Principle

This principle suggests that it is vital to protect the interests of the least advantaged members of society and/or those who have the greatest needs. Applying this principle to managed retreat would mean providing the greatest support to those with the lowest incomes and/or least net wealth. The principle could extend to the natural environment. Nature is unable to advocate for itself, yet ecosystems are also impacted by natural

hazards leading to their loss.⁴ Applied to nature, the principle means that managed retreat should incorporate specific provisions to support ecosystem resilience to natural hazards, such as supporting improved ecosystem health, assisting recovery and supporting climate change adaptation.

A future managed retreat system could reflect the least advantaged principle by providing more generous support for those with the least wealth as well as for nature.

5.6 Needs Satisfaction Principle

Most approaches to social justice place significant weight on meeting various basic human needs including adequate food, clothing, shelter, education and health care. However, there are many different approaches to needs satisfaction. Some approaches emphasise the moral obligation to meet only a limited range of basic needs such as addressing severe poverty. Others set a higher benchmark such as ensuring that every citizen can 'participate and belong' in the life of their community, enjoy an adequate level of wellbeing and live as social equals.

The needs satisfaction principle has several implications for managed retreat. First, many property owners may be at risk of losing their homes or significant savings. Renters may find it difficult to afford the rent of a suitable home in a nearby location. Given that adequate housing is recognised as a basic human need, applying this principle implies that it would be unjust for the state to undertake managed retreat without a proper housing policy. The state would need to ensure that all those required to relocate, including renters, are able to secure affordable and adequate housing.

A future managed retreat system could reflect the need satisfaction principle by ensuring that those needing to move are provided with adequate housing options.

5.7 Intergenerational Equity Principle

This principle is about the relative value given to the interests of current and future generations. It posits that those currently alive have a moral obligation to protect the interests of future generations. This requires acting prudently in the present, considering the long-term effects of

decisions, and living off the dividends of natural capital rather than eroding its base.

The intergenerational equity principle assumes that the market cannot be relied on to provide for the interests of future generations because its participants may not be born yet. It is highly compatible with the *te ao Māori* principle of *kaitiakitanga* and other principles such as remedial responsibility, compensatory justice and restorative justice. MFE's proposed managed retreat principles signal the importance of intergenerational equity by stating "ensure fairness and equity for and between communities, including across generations".

This approach has limitations. It has been criticised as being anthropocentric because it focuses on fulfilling human needs rather than those of other species. Additionally, the needs of future generations is an amorphous concept and extremely hard to predict. For example, do current generations have an express obligation to preserve (as best they can) resources or 'untouched wilderness' for the future or simply to provide future generations with the same opportunities to exploit those resources?

A future managed retreat system could apply the intergenerational equity principle by institutionalising long time frames and adopting a future focus in planning processes.

5.8 Compensatory Justice Principle

This principle seeks to recompense unjustified losses, damage or disruption. The aim is to right a wrong or rectify an injustice. Where possible, the goal is to make people 'whole again'. In Aotearoa New Zealand the idea of compensatory justice has informed the design of public compensation for historical injustices to *iwi/hapū* under Te Tiriti o Waitangi and establishment of a no-fault compensation scheme for accidents. To the extent that managed retreat directly affects land owned by *iwi/hapū*, including land transferred under a Treaty settlement, the principle would indicate that compensation for resultant losses would need to be provided.

A future managed retreat system could provide for compensatory justice by providing public compensation for losses arising from managed retreat including losses to Treaty settlement land.

5.9 Restorative Justice Principle

The restorative justice principle is about restoring the relationship between those who have caused an injustice and those who have been wronged. From a substantive managed retreat policy perspective, the principle suggests that redress of some kind should be provided to those who lose their homes and businesses. From a procedural perspective it highlights the importance of processes being ‘person-centred’ so they are as humane, open, respectful, collaborative and supportive as possible.⁵

The restorative justice principle focuses on injustices to people, but it could be expanded to include nature. As well as deliberately making room for at-risk ecosystems to move inland in the face of sea level rise, an eco-centric framing would focus on repairing damage caused to ecosystems by human activities.

A managed retreat system could provide for restorative justice by providing public compensation for the loss of houses and businesses and repairing damage to the natural environment.

5.10 Comparative Justice Principle

The comparative justice principle requires alike cases to be treated in the same way. Conversely, cases that are not alike should be treated differently. Further, any differences in treatment should reflect the extent to which there are relevant differences between the cases. For managed retreat, this could mean that property owners should be treated consistently within communities, across the country and, ideally, over time.

A managed retreat system could provide for comparative justice by ensuring that all property owners and residents are treated consistently.

5.11 Recognition Justice Principle

The recognition justice principle looks to redress the underlying reasons for maldistribution. In the context of climate change, the principle aims to redress the structural causes of the disproportionate burden of climate harms borne by some people. It could also apply to harm borne by ecosystems and non-human species if an eco-centric lens was cast over the principle.

Application to managed retreat policy would mean recognising differences between individuals and groups, including in the cultures, values and situations of affected parties. It would require active acknowledgement of who people are, where they are coming from, and what they are saying about their situation.

A managed retreat system could provide for recognition justice by acknowledging the social and cultural differences between affected people.

5.12 Te ao Māori Principles

Māori worldviews incorporate not just ethical and relational understandings but also values and principles embedded in tikanga. A central Māori principle is tino rangatiratanga which is included in Article 2 of Te Tiriti (with the English version referring to “possession”, a very different concept). Tino rangatiratanga is a principle “rooted in a Māori worldview, and there is no one English term which fully encapsulates its meaning.” It refers to chiefly authority, “Māori control over Māori lives, and the centrality of mātauranga Māori”.⁶ It drives a number of other values in a cascading sense.

Tino rangatiratanga brings into focus the important Māori principle of kaitiakitanga as well as concepts such as mauri (life-force or essence) and mātauranga Māori. The latter is more than just the knowledge of scientific facts. It encompasses broader ideas like wisdom (knowing what *ought* to be done), science and systems of knowing. Coupled with the more recently emerged “Principles of Te Tiriti” discussed below, these concepts help set the framework for Māori communities to respond to climate change.

Many traditional narratives hold mātauranga about risk and customary or historical practices including informing ideas around adaptation. For example, the whakatauki “Ka mate kāinga tahi, ka ora kāinga rua” refers to resilience, perseverance and preparedness and suggests that when one’s home is no longer habitable, another can be found.⁷

Approaching climate change adaptation from a tino rangatiratanga perspective would empower Māori communities to drive processes for themselves. This would help ensure that Māori cultural sites and whakapapa connections with the environment remain protected. It would also see that mātauranga Māori was respected and that tangata whenua were able to fully participate in decision-making and power sharing. This

voice would be expressed in a joint sphere between rangatiratanga and kawanatanga (the Crown).⁸

Other important Māori values include⁹ whanaungatanga (“the centrality of relationships to Māori life”), manaakitanga and kaitiakitanga (“nurturing relationships, looking after people, and being very careful how others are treated”), mana (“the importance of spiritually sanctioned authority and the limits on Māori leadership”), mana whakahaere (“a set of processes, customs, policies, laws and institutions affecting the way a group is directed, administered or controlled”)¹⁰, tapu/noa (“respect for the spiritual character of all things”) and utu (“the principle of balance and reciprocity”). Robert Joseph also highlights the importance of the concepts of koha (gift exchange), aroha (charity and generosity) and hau (respect for the vital essence of a person, place or object).¹¹ These values are intertwined with spiritual relationships to provide the foundation for Māori society as well as the key institutions of te ao Māori.¹²

Alongside these principles are those under te Tiriti o Waitangi. These are constantly evolving and are being defined through Waitangi Tribunal



Tohu, Tapapakanga

reports and case law. While there is no definitive list, there are some well-established principles that are now widely accepted. Following the *New Zealand Māori Council v Attorney-General* decision in 1989¹³ government identified the following principles to help guide government policy and action:

- The Principle of Government (the government's right to govern and make laws)
- The Principle of Self-Management (the right of iwi to organise and control their resources)
- The Principle of Equality (all New Zealander's are equal before the law)
- The Principle of Reasonable Cooperation (between government and iwi on matters of common concern); and
- The Principle of Redress (effective resolution of Māori grievances).

In modern jurisprudence, and out of respect for the Māori version of Te Tiriti, the Principle of Government is also now often referred to (and used interchangeably with) the Principles of Kāwanatanga, Self-Management and Rangatiratanga. Additional principles are now well established by the Waitangi Tribunal and courts including the Principle of Partnership, the Principle of Active Protection, the Principle of Reciprocity and the Principle of Mutual Benefit (the needs of both cultures are provided for).¹⁴

All these principles are interconnected and underpinned by a number of established duties on each party including a duty to act reasonably, honourably and in good faith, and a duty to make informed decisions which is linked to a duty to consult. There is also emerging jurisprudence around a “Right to” or “Principle of” Development.¹⁵ This encompasses a general right for tangata whenua to develop as a people, rather than be locked into an historical context. The Right to Development Principle has been endorsed by the Waitangi Tribunal but not as yet by the courts.¹⁶

MFE's proposed principles for managed retreat cover te Tiriti obligations in the legislative but not funding list. Arguably they should be included in both, as governance implies the ability to participate in decisions about funding (not only legislation) in order that the implication of funding options for Māori are fully considered. In addition, te ao Māori principles do not feature in the proposals. The principles inherent in Te Mana o te Wai offer a model which could be adapted for a managed retreat system.

Exploring the principles inherent in Te Mana o te Wai

The application of principles underpinning Te Mana o te Wai, a term which is included in the National Policy Statement for Freshwater Policy, are only starting to be explored. Such principles include mana whakahaere, kaitiakitanga and manaakitanga which are to be recognised and expressed through full engagement with iwi and hapū. “Mana” is a broad concept. It has been defined as “prestige, authority, control, power, influence, status, spiritual power, charisma – mana is a supernatural force in a person, place or object. Mana goes hand in hand with tapu, one affecting the other”.¹⁷

Water has its own mauri or life force. It is considered by Māori to be the tears of both Ranginui and Papatūānuku, and is shed by rain and mist to become the lifeblood to support koiora or living communities. Almost every activity has a link with the maintenance and enhancement of mana and tapu. Animate and inanimate objects can also have mana, as they derive from the atua. In addition, mana can be derived from association with people imbued with mana or because objects are used in significant events.¹⁸

There is much to explore in the concepts of mana and tapu but one example is the Treaty settlement for the Whanganui people – the many tribes that reside near and along the Whanganui River. The river was returned to iwi Māori with all the legal rights of a person, so the river carried mana, and this sets a tone for that mana to be applied to the water. This highlights the importance of water to Māori and managed retreat from land should be viewed in a similar way. The land that is retreated from, or retreated to, has mana in the same way as the awa was recognised as having mana in the Whanganui case. If these concepts were applied in the context of managed retreat then respect for the land would be paramount.

Canada’s National Adaptation Strategy discussion document explicitly states as one of its principles that indigenous peoples should have the right to “choose and advance their own self-determined actions on adaptation”.¹⁹ A similar principle could be adopted for Aotearoa New Zealand’s managed retreat policy.

5.13 Ecological Justice Principle

Ecological justice sees nature as an actor, not an object, within the human community of justice. Such a principle is recognised in the concept of

giving legal personhood to nature, such as achieved through the Treaty settlement processes for Te Urewera and Te Awa Tupua/Whanganui River. Application of the ecological justice principle could see rights extended to natural systems affected by climate change.

There could be express recognition of ecological justice in future managed retreat legislation, embracing an eco-centric ethic, and welcoming nature into the human system of justice.

5.14 Conservation Principle

The conservation principle recognises the need to protect ecological integrity, including supporting the full potential of indigenous biotic and abiotic features and natural processes, functioning in sustainable communities, habitats and landscapes, and the ecological health of natural systems. In this sense, the conservation principle resembles the public trust doctrine, where the state has a responsibility to act as the guardian of ecological values of public areas. The principle is reflected in MFE’s Consultation Document as the “protection of the natural environment”. However, under the conservation principle protection is not always enough, with nature often requiring assistance to restore ecological integrity and health.

The conservation principle could be made explicit in a future managed retreat system and extend beyond protection to include regeneration and restoration of the natural environment.

5.15 Ability to Pay Principle

The widely applied ability to pay principle recognises that duties to pay vary with ability, so that the more able (ie wealthier) have greater duties than the less able (ie poorer). When applied to managed retreat it implies that those with the greatest means should contribute disproportionately to costs. It also follows that a high-net-worth person should receive less public assistance than those on lower incomes and/or with lower net worth.

A managed retreat system could recognise the principle of ability to pay by providing greater assistance to those with lower incomes and/or net worth.

5.16 Beneficiary Pays Principle

The beneficiary pays principle holds that private benefits arising from a public managed retreat policy should be either surrendered or compensated for. Thus, the greater the benefit received, the greater the amount owed back. This principle is reflected in MFE's proposed principle that "beneficiaries of risk mitigation should contribute to costs."²⁰

In practice, the principle may be hard to implement due to difficulties in identifying all the benefits received and calculating their precise value. For example, when constructing a protective seawall, it is highly likely that some people will benefit more than others. A seawall might be designed to protect not only at-risk residents living nearby, but also a vital transport corridor to other communities. The barrier may also encroach on ecosystems. Consequentially, there may potentially be large numbers of beneficiaries, who profit to different extents from the wall, as well as unrepresented non-human species who bear the cost.

In addition, risk mitigation policies may bring important benefits to society as a whole such as lower long-term economic and social costs because fewer people, properties and public infrastructure will be harmed by repeated flooding and inundation. On this basis, the 'beneficiaries of risk mitigation' could be seen as all the citizens of the country, both now and in the future.

A managed retreat system could recognise the beneficiary pays principle through requiring those that directly benefit to contribute to the cost.

5.17 Polluter-pays Principle

The polluter-pays principle holds that the party responsible for causing harm should pay to remedy the harm or right the wrong caused. Applied to climate change impacts, it suggests that those who have contributed disproportionately to the emission of greenhouse gas emissions should contribute accordingly to adaptation responses. This concept has been applied at the global level with expectations that developed countries compensate developing countries for historical emissions and help fund adaptation measures. In the domestic context this could require entities deemed disproportionately responsible for historical and current emissions to pay for managed retreat and transitional adaptation measures. These funds could be targeted to vulnerable communities and ecosystems at risk.

A managed retreat system could recognise the polluter-pays principle by funding some of the costs of managed retreat through a charge on greenhouse gas emitters.

5.18 Subsidiarity Principle

Subsidiarity holds that decisions should be made closest to, and in line with, the values of those most affected by them. It is focused on placing authority in the relevant community of interest so it can shape the results. It is compatible with liberalism and te ao Māori principles of rangatiratanga, mana whakahaere and kaitiakitanga.

The key challenge in applying the subsidiarity principle is how to identify and classify those who are most affected by managed retreat decisions. Further, questions on the workability of the subsidiary principles include how decision-makers at different-scales (central/local/community/iwi) would interact, what the role of the private sector would be, how decisions would be made, how tensions between conflicting interests would be resolved, and how equal participation in local decisions would be ensured.

A future managed retreat system could include the subsidiarity principle and locate decision-making responsibilities close to those most affected by policies.

5.19 Procedural Justice Principle

Public participation is a procedural cornerstone of law. Internationally, the procedural justice principle is often focused on access to information, the ability to be involved in decision-making processes, and access to judicial redress. The law generally aims for all relevant views to be considered, choices to be informed by local knowledge, and a balance to be achieved between use and protection which reflects the wider values of communities.

The principle has generally operated on the assumption that people should be able to participate to the extent that their interests are affected. As such, broad participatory rights are provided when producing plans, policy statements and regulations under the Resource Management Act 1991 (RMA) (and plans under the Local Government Act 2002) where objectives, policies, rules/regulations and other provisions can affect a wide range of people. It implies that Māori should have relatively strong participatory rights because of their status as Treaty partners. Access to information, transparency of process and access to justice are also important.

The procedural justice principle could be reflected more strongly in a managed retreat system to ensure processes are transparent and fair including for mana whenua.

5.20 Voluntarism Principle

The voluntarism principle emphasises the importance of voluntary action. Compulsory movement of people should only occur if necessary to protect the public interest. A focus on voluntary action can serve to increase social licence for managed retreat and reduce the risk of active public resistance, including protracted legal action. However, it can have limitations when some people refuse to move despite compounding risks, undermining co-ordinated action.

The voluntarism principle could be applied to managed retreat to the extent that compulsory movement of people was not required to protect the broader public interest.

5.21 Precautionary Principle

The underpinning idea behind the precautionary principle is that a lack of scientific uncertainty should not be used to avoid taking action to prevent the risk of serious harm. In a managed retreat context it means that even

if the science on a hazard is not definitive, if there is a serious risk of harm, then action should still be undertaken to move people out of harm's way.

Applying the precautionary principle to managed retreat would mean that action would be taken in the absence of definitive science establishing the nature of the risk.

5.22 Avoid Maladaptation Principle

The avoid maladaptation principle seeks to avoid any unintended negative consequences of decisions. It requires a joined-up approach to policy formation and awareness of how solutions in one sphere can exacerbate those in other areas or in the future. For example, planning for removal of settlements under managed retreat should account for where people will be relocated to and whether this will increase the vulnerability of other systems, sectors or social groups. It will be particularly important to consider iwi/Māori interests, because land near coastal communities may be iwi settlement land.

Careful consideration of the potential for adverse ecological effects from new subdivisions or buildings constructed to provide for relocated people will also be required under this principle. There is a risk that the pressure to move people will result in a lowering of environmental protections and increase in the acceptability of ecological harm. It will be important in applying this principle to recognise that biodiversity loss and climate



Intensified development on the shoreline at Arkles Bay

mitigation are interconnected. Avoiding maladaptation means ensuring that climate mitigation solutions do not inadvertently increase carbon emissions or loss of nature.²¹

An avoid maladaptive principle could be applied to managed retreat through considering and addressing broader consequences that might arise from taking specific actions.

5.23 Bringing the principles together

The principles discussed above provide a touchstone for the development of a managed retreat policy which supports a ‘just transition’ where impacts and opportunities are more evenly distributed.²² The principles indicate a need to look after the more vulnerable members of the community, as well as nature and future generations, when planning retreat strategies. They also emphasise the need to face the challenge of climate change adaptation as a collective, rather than leaving individuals to suffer the consequences alone. Importantly, they emphasise the importance of empowering Māori to be key decision-makers, particularly where Māori-owned land, resources and communities are affected. The

ability of communities to actively participate in decisions that affect them is also highlighted as well as the importance of supporting voluntary action in the first instance before compelling people to adapt.

Questions for discussion:
1. Which principles should be applied to Aotearoa New Zealand’s managed retreat system?
2. Which principles should be prioritised or have greater weight?
3. What are the trade-offs between principles?
4. What are the key elements of a just transition in the context of managed retreat?
5. What do the principles indicate regarding the role of Māori in managed retreat?
6. What do the principles suggest regarding the design of appropriate funding policy?

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6 Why public compensation might be needed



Severe coastal erosion at Haumoana

In this Part of the Working Paper we examine what might need to be considered when designing a public compensation scheme for the loss of residential property in managed retreat. We consider why public compensation might be needed in Aotearoa New Zealand, how it has been provided in other countries, how a compensation scheme might be designed for this country and how it might be funded. In Part Four we consider funding issues for other sectors.

In broad terms ‘compensation’ is designed to address an unjustified and/or unintended harm.¹ ‘Public’ compensation is that provided by an entity that is, at least in part, publicly funded to deliver a public or government service. It usually has three main goals: to rectify a loss or right a wrong; to support rehabilitation; and to provide incentives to minimize harm, thereby promoting public welfare and overall efficiency.

Many of the principles described in Chapter 5 indicate the need for and desirability of some form of public compensation scheme for managed retreat in Aotearoa New Zealand. These include upholding the tradition of social solidarity (including collective risk-pooling), upholding the principle of remedial responsibility (where people in need are given assistance), incentivising voluntary relocation; and upholding the principles of compensatory and restorative justice.

It is also important to consider legal precedents when it comes to private property. It is highly likely that managed retreat will require the compulsory acquisition of some private properties as there will inevitably

be some owners who will refuse to cooperate with a voluntary programme of property acquisition. In this respect there is a long-established legal principle that public compensation should be provided when the state acquires private property on a compulsory basis, as reflected in the provisions of the Public Works Act 1981.

A managed retreat system will also need to consider the mix of public incentives for protection rather than relocation. If the government provides funds to support community protection measures (such as seawalls or floodbanks), it will arguably need to provide more generous funding to assist with managed retreat. Otherwise communities will likely seek to rely on protective structures when managed retreat is the more socially optimal long-term response.

Contemplating a public compensation scheme for managed retreat raises significant challenges. Foremost, it will be fiscally expensive for the government. Costs would escalate substantially during the second half of the century and beyond. That said, substantial costs will be incurred in any event, irrespective of whether retreat is managed or unmanaged, and whether public compensation is provided or not. It is really a matter of determining who should bear the costs and to what extent they might be minimised. By shifting some costs from individuals onto the taxpayer collective, public funding of proactive adaptation measures has the potential to reduce the overall long-term societal costs of climate change adaptation.

In a democracy such as Aotearoa New Zealand, it seems unlikely that a long-term programme of relocation will secure the required level of cooperation from those directly affected, or the necessary degree of public confidence and support, without some form of public compensation. Otherwise a significant proportion of residential property owners, along with many tenants, will simply lack the resources to move, and property owners will likely engage in protracted legal action.

Questions for discussion:

1. Is a public compensation scheme for loss of residential property needed and/or desirable to support managed retreat in Aotearoa New Zealand?
2. Could managed retreat of residential areas realistically be undertaken without some form of public compensation?

Endnotes

- ¹ Note that compensation differs from *restitution*. Whereas restitution involves returning an object that has been lost or stolen to its rightful owner, compensation does not involve the “restoration of the object itself, but rather the provision of something else altogether”, Goodin R, 1989, ‘Theories of compensation’, *Oxford Journal of Legal Studies*, 9(1), 56-75, at 59

7 Experience in other countries



Double Bay, Sydney

Relatively few countries have comprehensive national-level policy frameworks to address the many and varied costs of climate change adaptation. Current funding responses tend to be ad hoc.¹ We could identify no examples of governments pre-funding some of the expected long-term costs of climate change adaptation. However, some vulnerable countries (such as Singapore)² and coastal cities have developed plans to invest heavily in adaptation initiatives over the next few decades.

Most examples of managed retreat have been modest in scale, typically involving only several dozen to a few hundred properties. But there are some examples of large-scale relocations. For instance, the massive 2011 earthquake and tsunami in Japan displaced hundreds of thousands of people, many of whom were resettled in safer locations.³ In most cases where publicly-mandated relocations are undertaken, some form of public assistance is provided to the affected residents. Funding typically comes from either the central government, sub-national governments, or some combination of both (see Figure 5).

There are lessons from international reviews which should inform the discussion of a public compensation scheme in Aotearoa New Zealand. These include:

- (a) *There is variable practice across countries:* In some cases property owners are fully compensated based on a (pre-disaster) fair market value; in other cases compensation provides for full replacement in a similar but low risk neighbourhood; and in yet other cases there is only partial compensation and/or caps on the size of payouts.

Some compensation packages (eg in the United States) include relocation assistance and help for renters.

- (b) *Voluntary measures are generally preferred:* Property buyouts are generally voluntary rather than compulsory⁴ and the utilization of voluntary buyouts is generally low until a major flood or coastal inundation occurs. For instance, in Nashville, Tennessee the take-up of a long-standing voluntary buyout programme increased dramatically after a major flood in 2010.⁵
- (c) *Managed retreat is controversial:* Public compensation for property losses due to managed retreat remains politically and socially controversial in many countries. Community opposition to property buyouts and relocation is relatively common.
- (d) *Public acceptance of managed retreat is affected by multiple factors:* The level of support among affected private property owners and the wider public for buy-out policies depends on a range of factors⁶ including perceptions of risk; attachment to 'place'; the level of trust in local officials; and financial factors. Other considerations include: procedural issues (eg whether property owners believe that the policy process has been open, transparent, and fair); perceptions of fairness (ie are the owners being offered a fair price for their property); the varied goals and values of affected residents; and the way the objectives of, and principles underpinning, the policy of retreat are framed and communicated to residents.⁷

Country	Examples of compensation
Australia	Following major floods in the Brisbane area in early 2022, the federal and Queensland state governments agreed to fund an estimated 500 residential property buyouts at an average cost of A\$750K per property. Similarly significant buyouts are planned in parts of New South Wales.
Austria	Since the 1970s, both national and sub-national governments in Austria have undertaken managed retreat along various sections of the Danube River in the interests of flood risk management. Over 500 residential and commercial properties have been purchased on a voluntary basis at their market value, based on independent assessments. ⁸ Compensation arrangements have varied. In some cases landowners were required to contribute a share of the relocation costs, such as the costs of demolition.
Canada	Compensation arrangements and criteria vary between the different provinces, but there is an expectation that compensation for property losses will be provided. ⁹ For instance, the province of Quebec funds property buyouts where homes have repeatedly flooded or are highly vulnerable. Under policy settings announced in mid-2022, a 'departure allowance' is available, with a maximum of C\$325,000 for a standard residence. Homeowners choosing to rebuild rather than sell their properties following a flood are entitled to a lifetime maximum recovery allowance of C\$100,000. Once the limit is reached, no further disaster assistance will be available.
China	Around 1.3 million people living along the banks of the Yangtze River were forced to relocate in the 1990s to make way for the reservoir behind the giant Three Gorges hydro dam. Those displaced along the affected section of the river (almost 200 kilometres) were offered compensation by public authorities of 30,000 yuan (or about US\$4,600) per person. Decades later, however, many of those evicted had not received compensation.

Country	Examples of compensation
Fiji	A growing number of at-risk coastal villages have been relocated with modest financial assistance from the government.
India	The state of Orissa has relocated several at-risk villages by providing housing for affected residents in safer locations nearby.
Netherlands	Public compensation has been provided over the past few decades to property owners in around 30 locations affected by the 'Make Room for the River' programme which can involve moving protective barriers to create larger flood plains and thus reduce flood risk.
United Kingdom	Only limited central and local government funding is currently available for residents whose properties are threatened by sea level rise and coastal erosion. Managed retreat has been undertaken in various locations over recent decades but a transparent and nationally consistent approach for compensating affected property owners has been lacking. ¹⁰ In some cases, the level of compensation has been related to the level of risk and the availability of information regarding the risks in question. Some of those living in flood-prone areas receive subsidised household insurance via the Flood Reinsurance scheme.
United States	The Federal Emergency Management Agency and other federal agencies have undertaken well over 40,000 residential property buyouts since the 1980s to relocate residents affected by significant and/or repeated flooding and coastal inundation. Property owners receive payments based on the pre-disaster value of their properties and assistance with removal expenses. Many states also have additional programmes.

Figure 5: International examples of public compensation for managed retreat

- (e) *Managed retreat tends to exacerbate inequalities:* Income and wealth inequality, along with other social divisions, are often exacerbated by the impacts of climate change as well as the policy responses to those impacts such as managed retreat.¹¹ Worse outcomes are experienced by a variety of disadvantaged groups, and in particular indigenous peoples, ethnic minorities, those renting properties in at-risk locations, those on low incomes, those with significant health issues, and those with limited borrowing options.
- (f) *The needs of renters are often neglected:* Those renting properties in areas zoned for retreat are often given only limited public assistance. For instance, in the United States there is reliable evidence that both the direct impacts of climate change and governmental property buy-out programmes often leave renters significantly worse off.¹²
- (g) *Indigenous peoples may be the most disadvantaged:* The available international evidence, albeit limited, suggests that indigenous peoples may suffer disproportionately from both the impacts of climate change and the policies designed to mitigate those impacts.¹³ Indigenous peoples tend to live in more vulnerable areas and have fewer resources than other groups to cope with the impacts of climate change. Such factors are particularly relevant for Aotearoa New Zealand given that Māori are disadvantaged relative to Pākehā on most of the relevant measures of wellbeing.
- (h) *Co-funding across different levels of government can be problematic:* Co-funding by national and sub-national agencies can add to policy complexity, contribute to delays and raise equity issues, not least because of the unequal resources and capabilities of sub-national

governments. Moreover, local authorities are typically reluctant to fund or co-fund property buyouts. This is because their financial resources are limited; providing compensation to property owners raises politically sensitive issues; and the loss of properties can impact on their revenue from property rates/taxes.

Overall international experience indicates that, despite its many difficulties, managed retreat will often constitute the most cost-effective and perhaps the only technically feasible solution to climate-induced flooding and sea level rise. If well planned and executed, and undertaken sufficiently early, it will reduce long-term risks, enhance a community's resilience, and generate other positive outcomes and opportunities including benefits for nature.¹⁴ Equally, unlike protective structures which will probably require periodic enhancements, each instance of retreat should ideally constitute a one-off (and thus non-repeated) investment.

International research also highlights that societies' ability to adapt to sea level rise, and enhance their resilience to the impacts of climate change, is less about their technical prowess and more about social and political factors such as the quality of governance.¹⁵ In other words, adaptive capacity depends on having the necessary decision-making processes and policy frameworks in place to resolve (or at least manage) inevitable societal conflicts, enable informed and prudent decision-making, and mobilise the required financial and other resources.

Question for discussion:

1. What can we learn from overseas experience to help design an effective managed retreat system in Aotearoa New Zealand?

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8 Designing public compensation for Aotearoa New Zealand



Homes at Kaiaua flooded during the January 2018 storm

In this chapter we set out a series of options for how a public compensation scheme could be designed. We then turn, in Chapter 9, to how the scheme might be funded and administered and what other regulatory and policy changes might be required to support it.

8.1 Design considerations

When considering the design of a public compensation scheme there are a number of important considerations including what the goals of the scheme should be, what principles should underpin it, who should be eligible for compensation, and how properties should be valued.

We set out a wide range of principles that could be applied to managed retreat in Chapter 5. Any principles applied to a public compensation scheme will need to accommodate a diverse range of contexts and circumstances. Moreover, somewhat different principles may need to be applied depending on the types of property loss being considered. For example, the loss of Māori land will likely require specific procedures and distinctive compensatory arrangements potentially tailored to the specific hapū or whanau affected.

Importantly, there is no *optimal* way to design a public compensation scheme for managed retreat. Nor is there a simple or ideal formula for sharing the burden of adjustment equitably. Any public compensation scheme will raise complex issues of eligibility. These include factors such as the location of the property; the type of property; when the property was built; the financial circumstances of the owners; the occupancy type; whether the property is insured; whether the property has been damaged;

whether there is a mortgage; and whether there is specific hazard information on the property's Land Information Memorandum and, if so, what this says and when it was included.

A critical question in designing any public compensation scheme will be how to value the properties zoned for managed retreat and how to relate any compensation to such valuations. There are various ways of valuing residential and commercial properties and these can produce markedly different results. Commonly employed methods include market value, sales comparison value, investment value, use value (or value-in-use), liquidation value, insurable value, rateable value, and replacement or rebuild value. Each of the options has various drawbacks, such as the likely fiscal cost, challenges of determining comparability or equivalence, potential assessment and administrative costs, and the impact on the value of neighbouring properties.

8.2 Compensation for residential property owners

There are numerous ways in which the *amount* of public compensation provided for property losses due to managed retreat could be determined. Figure 6 summarises 12 *possible* options along with a brief assessment of their respective advantages and disadvantages. They reflect various suggestions made over the years in Aotearoa New Zealand along with some approaches adopted in other jurisdictions. They are further described in Boston 2023.¹ They are designed primarily for residential properties and there is a need to develop a parallel set of options for compensating the owners of non-residential properties and for Māori land.

	Option	Advantages	Disadvantages
1	Compensation based on the replacement cost of the buildings plus the land value, with the land value based on comparable land in a safer nearby location	• Broadly consistent with the principles of community responsibility, comprehensive entitlement and effective compensation • Broadly fair to affected property owners • Likely to secure a relatively high rate of voluntary sales • Likely to secure the needed social license for proactive managed retreat • Lower administrative and compliance costs than most other options	• High fiscal costs • High risk of moral hazard • Likely to be regarded as unfair by some taxpayers and/or ratepayers • May result in over-compensation • May inflate property prices in at-risk areas generating unwarranted capital gains for owners
2	Compensation based on the value of a comparable or equivalent property in a safer nearby location (ie one of a reasonably equivalent size and standard)	• Broadly consistent with the principles of community responsibility, comprehensive entitlement and effective compensation • Broadly fair to affected property owners • Likely to secure a relatively high rate of voluntary sales • Lower administration and compliance costs than most other options • Likely to secure the needed social license for proactive managed retreat • Consistent with existing criteria in the Public Works Act where the market value of the affected property is insufficient or not appropriate	• High fiscal costs • High risk of moral hazard • Likely to be regarded as unfair by some taxpayers and/or ratepayers • May result in over-compensation • May inflate property prices in at-risk areas generating unwarranted capital gains for owners • There may be no equivalent properties in safer nearby locations – which would risk driving up property prices in the surrounding areas, depending on the scale of the retreat and investment in new housing stock
3	Compensation would be similar to that provided under either option 1 or 2, but with a fixed cap (eg based on the average house price nationally or regionally in the recent past)	• Depending on the level of the cap, this option could be broadly consistent with the principles of community responsibility, comprehensive entitlement and effective compensation • A low cap is likely to be considered unfair by many affected property owners, resulting in litigation, delays and refusal to sell voluntarily	• Relatively high fiscal costs (depending in part on where the cap is set) • Any reduction in fiscal costs relative to options 1 and 2 will depend on the level of the cap and the associated behavioural responses • The lower the cap, the greater the losses experienced by owners; some owners may be left with negative equity which could disproportionately affect first-home buyers with large mortgages

	Option	Advantages	Disadvantages
4	Compensation would be similar to that provided under either option 1 or 2, but with a fixed percentage contribution from property owners (eg 20%)	- Depending on the proposed percentage contribution and whether this is applied uniformly, this option could be broadly consistent with the principles of community responsibility, comprehensive entitlement and effective compensation - A high percentage contribution is likely to be considered unfair by many affected property owners, resulting in litigation, delays and refusal to sell voluntarily	- Relatively high fiscal costs (depending on the percentage contribution by property owners) - Any reduction in fiscal costs relative to options 1 and 2 will depend on the percentage contribution and the associated behavioural responses - The higher the percentage contribution, the greater the losses experienced by owners. Some owners may be left with negative equity which could disproportionately affect first-home buyers with large mortgages - May not secure the necessary social license for proactive managed retreat
5	Compensation would be flat-rate, with fixed amounts for each dwelling and land	- Much will depend on the level of the flat-rate compensation, whether it is applied uniformly across the country, and whether it is differentiated by property types - The direct fiscal costs of the scheme are likely to be lower than options 1 and 2, but there could be indirect fiscal costs if owners refuse to sell and/or if there are strong demands for better protection - Avoids providing proportionately greater compensation to the wealthy	- Broadly speaking, such an approach will disadvantage those with more expensive properties and advantage those with cheaper properties; it may thus be seen as unfair by many affected property owners - Some owners may be left with negative equity, thereby exposing lenders - Unlikely to secure a high rate of voluntary sales, resulting in the need for greater coercion - Unlikely to secure the social license required for proactive managed retreat

	Option	Advantages	Disadvantages
6	Compensation would be based on the estimated remaining habitable life of the property – the shorter the estimated life, the larger the compensation payment. Freehold properties would be converted to leasehold, with time-bound leases based on the period during which occupancy is considered safe; leaseholders would have a right to sell their lease or rent the property²	• The long-term fiscal costs of such a scheme are likely to be lower than many other options (depending on their specifications) • May be considered fair by many taxpayers and some owners	• Some owners may be left with negative equity, thereby exposing lenders • May not be regarded as fair or reasonable by some owners • Likely to generate significant implementation issues, including the risk of time inconsistency • May generate significant litigation • Probably not a stand-alone policy option, thus needs to be coupled with another option, which may cause problems • May not secure the social license required for proactive managed retreat • Likely to require legislative change and the creation of a new form of tenure
7	Compensation would be adjusted to reflect the knowledge of climate change-related risks by the owners at the time of purchase or construction	• The direct fiscal costs of such a scheme are likely to be lower than some other options (depending on their specifications) • May be considered fair and reasonable by some people (eg taxpayers)	• Unlikely to be regarded as fair or reasonable by many owners • Likely to generate significant implementation issues and be very difficult to apply in practice • Likely to generate significant litigation, with risks to councils • Likely to increase political pressure for better protection • Unlikely to secure the social license required for proactive managed retreat



Protective works and redevelopment on the shoreline at Milford, Auckland

	Option	Advantages	Disadvantages
8	Compensation would be differentiated depending on whether the property is the principal place of residence or not	• The direct fiscal costs of such a scheme are likely to be lower than some other options (depending on their specifications), but the indirect costs could be greater • Likely to be considered fair and reasonable by many people (eg taxpayers) • If well designed, will help protect the least advantaged property owners	• Probably inconsistent with the principles of community responsibility, comprehensive entitlement and effective compensation • Unlikely to be regarded as fair or reasonable by many owners of two or more properties • Highly likely to generate gaming and other behavioural responses which will reduce the expected fiscal savings • May generate significant administrative costs and implementation issues • May generate additional problems for tenants • May have impacts on overall investment in the residential property market with implications for the availability and affordability of residential housing • May not secure the social license required for proactive managed retreat
9	Compensation would be differentiated according to the means of the owners (eg their net worth and/or income)	• The direct fiscal costs of such a scheme are likely to be lower than some other options (depending on their specifications), but the indirect costs could be greater • Likely to be considered fair and reasonable by many people (eg taxpayers) • If well designed, will help protect the least advantaged property owners	• Very likely inconsistent with the principles of community responsibility, comprehensive entitlement and effective compensation • Many owners likely to be left with negative equity • Unlikely to be regarded as fair or reasonable by many owners, especially those who fail to meet the eligibility criteria for compensation • Likely to generate gaming and other behavioural responses which will reduce the expected fiscal savings • May generate significant implementation issues • Unlikely to secure the social license required for proactive managed retreat

	Option	Advantages	Disadvantages
10	Compensation would be differentiated according to whether the property sale is voluntary or compulsory	• Provides an incentive for owners to move on • Reflects additional costs of taxpayers if compulsory acquisition is required • Favouring voluntary purchases will likely reduce the need for compulsory purchases, but the likelihood of voluntary sales will depend on the overall design of the compensation scheme (ie which of other options are selected), along with the size of the incentive	• The disadvantages will depend on which option(s) this is combined with.
11	Total compensation for property losses due to managed retreat would be capped annually or for specified periods of time (ie via a fiscal envelope)	• If successfully implemented, this option would limit the direct fiscal costs of the scheme over time (but may result in significant indirect costs) • The advantages will depend on which option(s) this is combined with	• Highly vulnerable to time inconsistency; hence, an unstable policy option • Potential risk of clustering near temporal boundaries • The disadvantages will depend on which option(s) this is combined with • Unlikely to secure the social license required for proactive managed retreat, especially as the need for such retreat increases
12	There would be no compensation beyond a fixed date in the future; prior to that compensation could be based on one or more of the options above	• If successfully implemented, this option would limit the direct fiscal costs of the compensation scheme over time, but is highly likely to result in significant indirect costs • The advantages will depend on which option(s) this is combined with until the scheme is terminated	• Highly vulnerable to time inconsistency; hence, an unstable policy option • The disadvantages will depend on which option(s) this is combined with • Unlikely to secure the social license required for proactive managed retreat, certainly beyond any cut-off date for compensation

Figure 6: Options for public compensation for loss of residential properties

Each option has evident strengths and weaknesses – with some having serious drawbacks. Options 1 and 2 are the two most likely to ensure that proactive managed retreat can be implemented when deemed necessary. They are also those most consistent with the principles outlined earlier. In addition, given the (relatively) generous level of compensation they involve, many, if not most of the property owners affected by managed retreat can be expected to sell voluntarily. Such options are also scalable and applicable to multiple locations and contexts. Accordingly, they should stand the test of time as the adverse impacts of climate change intensify. Against this, both options would be expensive to implement, and the fiscal costs would likely increase substantially as the century progresses. If such costs are deemed to be unacceptable politically, then it will be necessary to consider another option or perhaps a combination of options.

Many of the other 10 options would be difficult and/or expensive to implement, and/or likely to generate significant opposition from affected property owners, and/or hard to sustain politically for various reasons. This includes Options 5, 7, 9, 11 and 12. Having said this, the devil is often in the detail. For instance, it is one thing to draw a line in the temporal sand, as for Option 12, but it is another thing to determine when this line should be drawn. If it were applied from 2050, for instance, its impacts would be radically different from delaying its application to, say, 2100. But even if the earlier date were chosen, for all practical purposes the main policy question would be which of the other options (or combination of options) Option 12 should be coupled with.

Each of the remaining five options deserve further analysis and consideration. This certainly applies to Option 6 (involving precautionary property buyouts with relatively long-term tradable leases). Also, Option 3 (which entails a fixed cap on the total level of compensation per property) may be easier to implement and secure a greater level of public support than Option 4 (which requires all property owners to shoulder a proportion of the estimated losses). But such an assumption will need to be tested. Potentially, a proportional contribution may be preferred by many people to a fixed cap.

Both Option 8 (which involves differentiating, for the purposes of compensation, between principal and non-principal places of residence) and Option 10 (which involves giving extra public assistance to those who choose to sell their properties on a voluntary basis) are also likely to find a measure of public acceptance.

It would be possible to combine several options, such as Options 3 and 8 – or perhaps 3, 8 and 10. It might also be feasible to have several options

available simultaneously, thus giving affected residents a choice over which ‘deal’ they preferred.

But in every case the parameters and specifications of each aspect of the proposed policy framework would need very careful analysis and deliberation. For example, it is one thing to have a cap on the total amount of public compensation per property (or type of property), it is quite another to determine where to set the cap – and, also, to decide whether there should be separate caps for different kinds of residential properties and for properties which serve different purposes and, if so, what differentiation is justified. Such matters are potentially complex and controversial.

Equally, while making a distinction between principal and non-principal places of residence for compensatory purposes has intuitive appeal, perhaps mostly based on principles of distributive justice (not least the basic human need for shelter), such an approach may be difficult to implement in practice. There is also the question of whether it would facilitate voluntary property buy-outs, especially if combined with a cap on the amount of available compensation.

Of course, even if a distinction is made between principal and non-principal places of residence for compensatory purposes, there is no requirement for the cap on the latter to be zero. The cap could, instead, be set at a lower level than the cap for principal places of residence – say at 50 or 75 percent of the higher rate. The challenge for policymakers is to determine in advance what specific policy parameters are likely to achieve the desired long-term results, and which parameters can be expected to prove durable.

Finally, there is the question of whether – and how – any preferred approach might be applied to vulnerable Māori land, including land provided to iwi/hapū by the Crown as part of a Treaty settlement. There will probably need to be special compensatory arrangements to accommodate such situations. But any distinctive provisions for Māori/iwi/hapū will need to be justifiable, including being broadly consistent with the principle of comparative justice. Otherwise, they are likely to provoke public criticism on the grounds that the kind of special treatment being instituted is not justified. The impact of climate change (and related policy responses) on Māori land, as noted earlier, requires comprehensive and contextualised investigation.

8.3 Compensation for residential tenants

The discussion so far has focused almost exclusively on the interests of private property owners – and mostly residential rather than non-residential. But, as noted earlier, a significant proportion of privately-owned residential properties are rented and tenants often fare badly in cases of managed retreat.² It is also important to note that current and growing housing inequities in Aotearoa New Zealand disproportionately affect Māori communities. The *Maihi Ka Ora National Māori Housing Strategy* states that “Māori make up just 16.7% of the population but represent 50% of those on the housing register, 37% of public housing tenants and are three times more likely to experience severe housing deprivation than Pākehā or New Zealand Europeans. Only 31% of Māori own their own home, compared to 51% of the general population”.³ This serves to highlight that tenants who are Māori will be disproportionately affected by climate change and managed retreat.

Accordingly, it will be important, both in the interests of distributive justice and the wellbeing of affected tenants including Māori, for any strategy of

managed retreat to incorporate specific provisions to assist tenants. With this in mind, it is worth noting that the Public Works Act 1981 provides for (discretionary) compensation to be made available by the relevant authority to tenants affected by the sale of a property.⁴

8.4 Funding for Māori

There are a range of ways in which funding could be provided to assist with managed retreat in Māori communities at both the central and local government levels. Central government funding in this area is currently focussed on research. More funding is needed for running actual trials with communities to test various managed retreat processes and consolidate learnings. There would be opportunities to use Māori communities as a pilot for managed retreat given that the community structure of whānau, hapū and iwi well lends itself well to testing different scales of retreat. More research funds could also be deployed into funding marae level planning (reflecting the key te ao Māori principle of Rangatiratanga – self-determination).



Ōnuku Marae

Funding resilience of Māori communities could also be built into other projects. For example, when Waka Kotahi relocates state highways that provide protection to marae, the projects could include funding to assist retreat of the marae. Other funds could be better configured to support managed retreat, such as Oranga Marae which is managed by Te Puni Kokiri. This provides funding for the physical and cultural revitalisation of marae.⁵ However, the current funding available (\$100k) is not sufficient to support the implementation of large-scale actions like managed retreat, and would need to be increased.

In terms of local government, it will be important to include Māori representation on council climate change committees. Council funding support could also be provided to iwi and hapū embarking on their own climate risk and adaptation work. There are currently some small funds available at regional council level for Māori communities (eg \$15,000 in the Bay of Plenty) but these are very insufficient for the task at hand.

Some iwi are well organised and may only need financial support to help implement their plans. Some may not need funding at all. Other iwi and hapū organisations may require support to get started, including embarking on adaptation planning. It can be a complex institutional environment to navigate as some hapū may not want iwi to speak for them and prefer to do their own planning.

It will be important to ask iwi and hapū how they wish to proceed with long term adaptive planning and for funding to be well targeted to their activities. Funding will need to be more accessible to communities who need it. For example, access to Māori researchers is often needed to complete research application proposals (eg Deep South Challenge Te Taura Fund) but there is a very limited number of Māori researchers in Aotearoa New Zealand and many of them are too busy to assist.

8.5 Implications for institutional design

Effective implementation of managed retreat, including any public compensation scheme, will require specialist institutional arrangements, robust governance, highly competent staff and adequate funding to cover the inevitable administrative costs. New institutional arrangements will be likely required. Such matters are not considered in any detail here, but will be considered in later stages of the EDS project. There are a range of options for institutional design including adding new functions to an existing public entity (such as the Earthquake Commission) or establishing one or more new public entities, such as a Climate Change Adaptation Commission or a Managed Retreat Commission.

There may be a case for creating a distinctive, special-purpose entity with unique governance arrangements, perhaps with representatives of the Crown, councils and mana whenua all serving on the governing body. This would enable regional councils, territorial authorities and/or mana whenua to be directly involved in the decision-making surrounding where, when and how to undertake managed retreat in specific communities.

Questions for discussion:
1. What options for the design of a public compensation scheme for residential property owners are worthy of further investigation and development?
2. How should tenants be supported in managed retreat?
3. How could funding be made available to Māori to support managed retreat?
4. What institutions might be needed to manage a compensation scheme?

Endnotes

1

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2

See Storey B, 2017, *Conversion to leasehold as methodology to price sea level rise risk*, Masters thesis, University of Canterbury

3

Dundon L and J Camp, 2021, 'Climate justice and home-buyout programs: Renters as a forgotten population in managed retreat actions', *Journal of Environmental Studies and Sciences*, 11, 420-433

4

<https://www.hud.govt.nz/our-work/maihi-ka-ora-the-national-maori-housing-strategy/>

5

See section 75, Public Works Act 1981

6

Te Puni Kōkiri, 2022, 'Oranga Marae', available at <https://www.tpk.govt.nz/en/nga-putea-me-nga-ratonga/marae/oranga-marae>

9 Funding public compensation



Much of Auckland's CBD is built on low lying reclaimed land

9.1 Potential costs of public compensation

It is difficult to estimate what the cost of a public compensation scheme might be. At the outset, it is unclear how many private properties will be affected by managed retreat over a specified period, as this will depend on a wide range of things including: the path of emissions and the impact this has on the climate and pace of sea level rise; the extent of vertical land movement; the extent to which public authorities are successful in preventing further development in hazardous areas; and the level of investment in new or improved protective structures. Also, the number of affected properties that will be eligible for public compensation, and the average amount of compensation per property and/or type of property, will depend on the overall specifications of any compensation scheme.



Houses were built on the flattened frontal dunes at Omaha

A scenario for costing a managed retreat public compensation scheme

Suppose that by the year 2100 the sea level around Aotearoa New Zealand has risen by about a metre, and there has been continuing vertical land movement, including ongoing subsidence in a number of significant population centres (eg Auckland, Napier, Nelson and Wellington). Suppose that, as a result, the relevant public authorities have created zones for managed retreat which affect 50,000 residential properties directly (and many thousands indirectly). And suppose further, for the sake of argument, that the public compensation scheme provides financial assistance per dwelling averaging about NZ\$1 million. Leaving aside all other related costs (such as for planning, administration, litigation, social assistance, demolition and removal and land remediation) the cost of the scheme for the period in question would be around NZ\$50 billion, with the bulk of this falling during the latter part of the century. On an annual basis, this would be less than NZ\$1 billion on average, or less than 1 per cent of current expenditure by the central government.¹

A fiscal cost of around \$1 billion per annum might seem relatively manageable in the overall scheme of things. But the figure excludes a range of other costs associated with managed retreat including the loss of non-residential properties, public infrastructure and social infrastructure and the cost of establishing new communities, all which are likely to be

substantial. There are also the various other costs associated with the climate change.

9.2 Raising revenue for compensation

There are multiple ways that the revenue necessary for a public compensation fund for managed retreat could be raised. Potential sources include:

- General taxation (central government)
- Property taxes (local authorities)
- An additional levy on home insurance policies (and perhaps other insurance)
- An additional levy on fossil fuels (eg petrol and diesel)
- Drawing revenue from the Climate Emergency Response Fund – which recycles proceeds from the emissions trading scheme
- Revenue from renting purchased properties until removal or demolition
- Revenue from relocating dwellings and other structures that can be moved cost-effectively, and re-selling them
- New taxes, such as a comprehensive capital gains tax

There is no reason, in principle, why a public compensation scheme could not be funded simultaneously from multiple sources. For instance, the Accident Compensation Corporation draws its funding from a combination of levies on employers, employees and the self-employed; government contributions from the general taxation pool; returns on the Corporation's investment fund (of around NZ\$50 billion in June 2021); and levies included in the price of petrol and motor vehicle license fees.

By contrast, the Earthquake Commission (EQC) is funded largely by levies paid as part of home insurance policies, together with investment returns on the Natural Disaster Fund. Currently, these levies are charged at the rate of 20 cents per \$100 of cover. The maximum premium per dwelling is \$345 (including GST). The levies are designed to reflect the expected long-term costs of earthquakes and the other natural disasters covered by the EQC

scheme, along with the scheme's administration costs. In 2022 the fund had around \$7 billion in reinsurance cover. It also has a Crown guarantee.

There is a strong case for seeking to apply the polluter-pays principle, at least to the extent that this can be achieved in a cost-effective manner, and while greenhouse gas emissions remain significant. The most obvious option would be to draw from the Climate Emergency Response Fund which was established in 2021. Currently, the initial NZ\$4.5 billion is being employed almost exclusively for climate mitigation purposes (ie to reduce greenhouse gas emissions). But there is no reason in principle why it could not also be employed in future years for adaptation purposes, including helping to fund managed retreat. However, the main costs of adaptation are likely to fall after greenhouse gas emissions fall to low levels. Hence, the emissions trading scheme or other greenhouse gas-related price mechanisms will not provide a long-term funding source for managed retreat or other adaptation costs.

Another option would be to apply an additional levy to home insurance policies. The logic for this approach would be similar in part to the logic for the EQC levy: that such a levy would help meet the costs of private *property* losses, in this case losses mostly due to climate change. Applying an additional levy at a fixed rate per \$100 of cover, in a similar manner to the EQC levy, would be more equitable than a flat-rate levy per dwelling. However, distributional implications of increasing the cost of insurance would need to be carefully considered.

Interestingly, in France loss and damage to properties due to natural disasters and shoreline management are funded via the Barnier Fund. This is financed by an additional premium that is applied uniformly to all home insurance contracts (at a rate of 12%) and vehicle insurance (at the rate of 6% per vehicle).²

Modest amounts of funding could be generated from lease-back arrangements for purchased properties (as described in Chapter 8). Similarly, in some cases, it may be cost-effective to move dwellings and other structures to safer locations and then re-sell them to interested buyers. In all likelihood, however, the total revenue from such sources will cover only a modest proportion of the costs of a compensation scheme.

From the perspective of the ability to pay principle, funding a significant proportion of the costs of a compensation scheme from general taxation revenue may be the best approach. It also minimizes administration and compliance costs.

9.3 Co-funding compensation

In some countries, the funding of property purchases in the context of managed retreat involves contributions from state governments, local authorities and/or the affected property owners. Likewise, several instances of successful managed retreat in Aotearoa New Zealand have involved sub-national governments contributing a share of the costs (such as at Matatā). Additionally, there are other examples of compensatory arrangements, such as that for the 'leaky homes' crisis, where councils and affected property owners have been expected to contribute a share of the costs.³

Requiring co-funding from property owners may increase the incentive to resist a strategy of retreat, thus complicating the ability to undertake a co-ordinated and timely relocation process. It may also trap poorer owners, who lack the funds to contribute their share, in high-risk areas. Thus any proposal to require co-funding by property owners will need careful design.

The issue of whether local authorities should be asked to pay part of the costs of a public compensation scheme for managed retreat raises different issues. In Aotearoa New Zealand local authorities have relatively modest statutory functions when compared to many similar-sized democracies (such as the Nordic countries and Switzerland). Partly because of this, they have limited revenue raising powers. Hence, their capacity to cover new and additional costs is heavily constrained, raising the issue of whether local government, as it is currently configured, could afford to contribute significant funds to public compensation for large managed retreat exercises.

9.4 Pre-funding compensation

Thus far, no country has established a dedicated long-term funding instrument to pre-fund some of the future costs of climate change adaptation, such as managed retreat. Fiscally, governments face multiple and never-ending demands on the public purse, all the more so given the continuing global pandemic. Politically, too, most governments find it hard to gain electoral support for significant non-simultaneous exchanges (ie inter-generational transfers), no matter how justified they may be.⁴

Other factors are also likely to weaken the case for pre-funding. To start with, the costs of climate change adaptation remain uncertain. In addition, future technological innovations may reduce some of the costs of adaptation substantially, and if future generations are better off than current generations, then the costs of adaptation will be more affordable.

Hence, the case for current taxpayers contributing significantly to a climate change adaptation fund may seem both unjustified and unnecessary.

However, current generations are causing climate change and this will impose significant costs on future generations. On this basis, it would be morally justifiable to tax current citizens to create a public fund (or funds) which could be drawn down in the future to help cover climate change-related loss and damage. Moreover, future generations may not in fact be better off.⁵

Pre-funding could be achieved through establishing a fund similar in concept and design to the New Zealand Superannuation Fund. Revenue for such a fund could be derived from a range of sources, with the pooled funds invested domestically and internationally, and then drawn down later in the century to help meet the costs of managed retreat.

Questions for discussion:

1. To what extent should a public compensation scheme be funded by general taxation as opposed to specific levies?
2. Should property owners and/or local government cover part of the costs of a compensation scheme?
3. Should some of the costs of managed retreat be pre-funded?
4. Should a Climate Change Adaptation or Managed Retreat Fund be established?



Coastal erosion damage at Haumoana

Endnotes

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Note that the fiscal costs under option 6 would be different and some of the costs would fall earlier.

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10 Providing for nature in managed retreat



Coastal forest affected by erosion at McNeills Beach, Westland

In this Part we consider how managed retreat might impact other sectors and how the costs they incur might be addressed. We focus first on nature and then infrastructure before turning to a range of business sectors.

Climate adaptation discussions often give little consideration to what managed retreat may mean for nature; or any recognition of the need for species to retreat from climate hazards alongside humans. This is despite Aotearoa New Zealand's coastal, river and floodplain ecosystems supporting a wide range of indigenous flora and fauna that will be unable to survive outside such habitats. These ecosystems also provide critical services to humans; coastal and floodplain ecosystems regulate floods while saltmarshes, mangrove forests and seagrass meadows store carbon and contribute to climate change mitigation and adaptation.¹

Despite their evident importance, coastal, river and floodplain ecosystems in Aotearoa New Zealand have experienced some of the greatest rates of historic loss. This has been through the development of land for agriculture and settlements, and the modification of river systems for such things as water abstraction, flood protection schemes and land conversion. Functionally intact remnants are often fragmented, modified and vulnerable to further loss due to threats such as non-native pests, pollution and ongoing habitat loss. The species that live in these places are some of the most vulnerable and threatened within the country.

10.1 Effects of climate change on nature

The main biophysical impacts of climate change on Aotearoa New Zealand's coastal systems will result from sea level rise and (to a lesser extent) changes in waves, storms and rainfall.² Marine areas will also be strongly affected by shifts in temperature and water acidity.³ Sea level rise will exacerbate coastal erosion and inundation, and worsen salinisation of groundwater, compromising coastal ecosystems and the species that depend on them.⁴ The most vulnerable ecosystems will likely be those associated with low-lying soft sediments, intertidal areas, estuaries, lagoons, beaches, sand dunes and mud/sand flats.⁵ Rocky coasts have greater resilience to the effects of sea level rise, but their ecology will be vulnerable to changes in temperature, wave forces and ocean acidity.⁶

In estuaries and coastal lagoons, sea level rise is predicted to extend the upstream limit of saline water, alter tidal ranges and extend submergence patterns for intertidal habitats such as salt marshes, mangroves, seagrasses and sand/mud flats.⁷ In the absence of physical barriers, habitats will move inland and upstream as the seaward margins of existing habitats become increasingly submerged. New areas of estuary habitat will naturally form to replace the inundated areas. However, where migration is constrained by infrastructure, topography or other environmental features, or where deliberate actions are taken to prevent migration (such as through infilling encroaching wetlands and installing new drainage), the most likely response to sea level rise will be the constriction and then loss of intertidal habitats.

‘Coastal squeeze’, where the migration of coastal habitats is constrained by natural or constructed barriers, is expected to affect many estuaries and lagoons in Aotearoa New Zealand.⁸ The extent of habitat loss may be large and could occur rapidly. For example, recent work on 11 estuaries suggest a 27 to 94 percent loss of intertidal area with a 1.4 m increase in sea level.⁹ The loss of intertidal flats could begin as early as the 2020s if rates of sea level rise exceed 5 mm a year and sediment supply is limited.¹⁰ Estuaries with gently sloping intertidal areas are projected to experience the earliest and largest losses of intertidal area, while habitats at higher intertidal elevations are expected to maintain themselves for longer periods.

Climate change impacts on the hydrology and submergence patterns of estuaries will likely alter community structures and ecosystem functioning.¹¹ Increased submergence will favour more salt and submergence tolerant species and will eventually lead to the loss of the most sensitive species of plants and animals. In some cases, such changes will favour the spread of exotic invasive species. Additionally, changing salinity and submergence patterns decreases the ability of shoreline vegetation to trap sediment, reducing accretion rates and increasing the vulnerability of estuarine shorelines to erosion.¹²

The predicted effects of sea level rise on beach and dune ecosystems is similar to that for estuaries. Coastal squeeze will result in the loss of beach and dune habitats, along with the specialist species that live within them, and lead to changes in community composition and ecosystem function.¹³ Other predicted effects include increased wave driven erosion and undercutting of dunes. The resulting dune scarps can act as physical barriers to species crossing the land-sea boundary, such as hoiho (yellow-eyed penguin) and rāpoka/whakahao (New Zealand sea lion). They also limit the transportation of sand inland which is critical to maintaining high quality sand dune habitats.

Prolonged beach and dune erosion will lead to the loss of habitat for species that occupy the dynamic coastal margin, including pīngao, the iconic sand dune sedge which grows only on the seaward faces of coastal dunes or on active dunes. Beaches and intertidal flats are important nesting and feeding sites for shorebirds, and the loss of habitat and increased disturbance due to sea level rise and wave erosion will be key threats to these species.¹⁴

Increased inundation and squeezing of intertidal habitats will reduce macroinvertebrate and shellfish abundance, with associated effects

on coastal food webs, ecosystem functioning and service provision.¹⁵ Groundwater salinisation is expected to alter the hydrology of dune slacks, a type of wetland found only in sand dunes. In addition, as for estuary and lagoon systems, sea level rise may alter the ability of dune building plants to trap sediment, while also decreasing beach volumes, thus increasing the vulnerability of sandy coastlines to sea level rise and flooding.

Shorebirds (also known as waders) are particularly vulnerable to climate change, as they will be impacted by the range of predicted changes at the land sea interface, particularly in terms of nesting.¹⁶ Many of the forty-seven shorebird species recorded in Aotearoa New Zealand are in decline.¹⁷ Certain estuaries such as the Kaipara, Manukau, Firth of Thames, Farewell Spit and Tasman Bay are key breeding and wintering regions for shorebirds.¹⁸ Changes in estuary condition at these sites, due to sea level rise, may have critical implications for these important species.

Sea level rise will also affect terrestrial ecosystems and species on low-lying land adjacent to the coast. This is vividly demonstrated by the ‘ghost forests’ which feature prominently along the Atlantic coast of North America and which were created by the submergence of formally forested low-lying land.¹⁹ Examples of vulnerable coastal forests in Aotearoa New Zealand include the pōhutukawa forests of the northern North Island, the podocarp forests of the Tautuku and Tahakopa barriers in the Catlins, and the kahikatea forests of Westland. Similarly, habitat fragmentation will mean that key refugia for some threatened terrestrial species will be vulnerable to sea level rise flooding and erosion.

Increased sea water and air temperatures will result in terrestrial and aquatic species moving southwards and/or upwards.²⁰ In coastal waters, for example, mangroves are predicted to increase their range southwards while the range of kelp is expected to contract to the south.²¹ More extreme heat waves will likely affect temperature sensitive species such as kelp, and some rocky shore intertidal species, leading to changes in community structure. In severe cases, where keystone species are lost, fundamental shifts in ecosystem state are likely to occur.

Changes in seasons may disrupt predator-prey relationships, and affect the flowering of some trees, when birds lay their eggs and when species migrate.²² Increased rainfall will increase soil erosion, worsening sedimentation and turbidity in some rivers, estuaries and coastal waters.²³ For regions that are likely to experience decreased rainfall, disruption of aquatic ecosystems through low flows or drying up of stream and rivers

will impact aquatic fauna and flora.²⁴ More acidic seawater will affect carbonate species like shellfish and coralline algae.²⁵

Vulnerability of species to the impacts of climate change will, in many cases, be heightened by the already degraded state of many ecosystems as the result of human impacts.²⁶ Fragmented, degraded and isolated populations will likely be less resilient to climate change impacts.²⁷

Loss and change to natural ecosystems will be an unavoidable consequence of climate change. The question is, how much loss is acceptable and in which situations, and what can be done to minimise it? It will be important to consider options to reduce impacts on natural systems during climate change adaptation and managed retreat, such as designing greener hazard protection mechanisms or undertaking ecological restoration of vacated lands.

10.2 How nature can adapt to climate change

Natural systems possess innate capacity to adapt to climatic and environmental change.²⁸ For example, coastal wetlands, mangrove forests and sand dunes can adapt to sea level rise by trapping sediment to increase their vertical height, as well as migrating inland.²⁹ Shorebirds can alter feeding patterns in response to changing storm cycles. However, in many situations, the adaptive capacity of habitats and species to respond to climate change will be inadequate.

The predicted rates of sea level rise are unprecedented; and are expected to be too fast for many coastal habitats and species to fully adapt.³⁰ Similarly, the magnitude and frequency of other climate change stressors, such as increased temperature and extreme flood events, are expected to overwhelm the innate adaptive capacity of many ecosystems and species.³¹



Many species live on the coastal frontline, Flaxmill Bay

Such effects are even greater when the adaptive capacity of ecosystems has already been undermined through other anthropogenic impacts.

Global-scale projections indicate that between 20 and 90 per cent of coastal wetland areas may be lost to sea level rise, based on low and high sea level rise scenarios, respectively. However, such losses may be avoided if wetlands are able to move inland, and wetland areas might actually increase in some cases. One modelling exercise indicated that wetland gains of up to 60 per cent of current area would be achievable if wetlands were given sufficient space to move.³²

In many situations, human modification of the coast has removed or decreased the effectiveness of natural adaptive mechanisms. Hard structures and drainage protect against flooding, but also prevent the inland transfer of sediment which is required for natural habitats to increase their elevation and migrate inland.³³ Changes in vegetation cover, due to shifts from native to exotic species, can also alter sediment transport processes in coastal habitats with implications for adaptation. Biological interactions, such as competition from introduced species, can further undermine the ability of indigenous species to move into new areas.³⁴

Other examples of decreased adaptive mechanisms include habitat fragmentation, and the loss of dispersal mechanisms, which prevent regeneration after a stress event. For example, the management of river systems to decrease flooding can be at the expense of species reliant on flood events for habitat creation or reproduction. In addition, there can be decreased seedling recruitment due to browsing pressure from non-native mammals.

Along with the physical and ecological barriers that limit climate change adaptation by nature, there are institutional and societal barriers. Poor perception of some habitats or species (ie mangroves in northern New Zealand), a failure to protect biodiversity values at the expense of development and/or knowledge gaps regarding requirements for successful adaption, can lead to inadequate protection and planning for habitats and species when faced with climate change and sea level rise.

In many cases, institutional and social barriers can be more of a threat to nature than climate change impacts. There remains poor recognition of the need to allow for dynamic coastal process in order to increase the adaptive capacity of nature, particularly by private property owners (and in some cases regulators), as allowing for dynamic coastal processes can increase hazard risks to adjoining properties.

The adaptive capacity of natural systems to environmental change has been significantly reduced due to land use change, habitat fragmentation and ecological degradation. Building ecological resilience in species and ecosystems, in the face of climate change, will require active support.

10.3 Supporting the adaptive capacity of nature

The adaptation of nature to climate change will, in most cases, require human assistance to overcome innate and induced barriers. There is a growing set of tools that can be used to help achieve this. For example, the IPCC reports on terrestrial and freshwater ecosystems³⁵ and oceans and coastal ecosystems³⁶ identify a range of possible actions to support climate change adaptation, and there is an increasing body of international literature on this topic.³⁷ However, much of this material is conceptual, and there has been little empirical testing to determine which approaches work best on the ground.³⁸ Despite this, it is possible to identify several opportunities to support biodiversity adaptation in Aotearoa New Zealand, based on current knowledge. They include:

- (a) *Managing in place to support migration:* This focuses on removing physical barriers to adaption or reinstating natural mechanisms or processes that support adaptation. For example, sediments can be added to habitats to help them keep pace with sea level rise, and water and sediment flows can be restored to facilitate accretion.³⁹ The removal of built barriers to increase accommodation space is another approach which is receiving considerable international attention for its potential to mitigate sea level rise effects on nature.⁴⁰

Often termed '*managed realignment*', the removal or breaching of protection structures to increase accommodation space for coastal wetlands has been successfully undertaken in Europe and the UK.⁴¹ While untested in the context of sea level rise adaptation, there are positive indications that providing accommodation space may offset wetland loss from sea level rise.⁴² In fact, it is likely that the removal of structures will be critical to ensuring wetland survival under future sea level rise scenarios. Successful implementation will require careful planning as restored habitats may not necessarily attain the physical and biological attributes of natural habitats without additional restoration actions.⁴³

- (b) *Ecological restoration*: Protecting and restoring natural processes and ecosystem health is a general underlying principle for maintaining and building biodiversity resilience to climate change.⁴⁴ Such approaches include species rehabilitation, restoring hydrological or geomorphic processes, restoring natural vegetation dynamics, improving connectivity between habitat patches, and reducing non-climatic stressors such as pests or habitat fragmentation.⁴⁵ In some situations, it may also be appropriate to create new habitats, such as new wetlands to offset historical wetland loss. This approach recognises that climate change will act synergistically with other existing threats to increase risks to indigenous biodiversity. As such, minimising other impacts will help improve resilience in the face of climate change induced shifts.⁴⁶
- (c) *Protecting habitats*: This approach involves increasing the amount of land in protected areas and maintaining large areas of resilient landscapes free from development. It also includes protecting sufficient accommodation space and climate change refugia. It is based on the considerable evidence indicating that the extinction risk to species from disturbances (including climate change) is reduced by having large, connected populations. Biodiverse systems are more resilient, and provide higher levels of ecosystem services, than those that are degraded and have lost species.⁴⁷ The approach highlights the need for climate change threats to be incorporated into resource management decision-making to ensure that human use and infrastructure will not reduce the resilience of core habitats to climate change.⁴⁸
- (d) *Other strategies*: There are many other strategies that can be adopted to support the ability of species to adapt. They include assisted translocations and migration of species, intensive management of specific species, ex situ conservation strategies (such as seedbanks/genetic stores) and assisted evolution (such as manipulating the genes of organisms in order to enhance their climate change resilience).⁴⁹ The long-term effectiveness of such strategies for climate change adaptation is unknown, and given the intensive nature of such interventions, they will likely only be suitable for application at a species level.⁵⁰ One potential exception is assisted colonisation when undertaken to restore ecosystem function (such as through the translocation of keystone species).⁵¹

Christie has developed a framework for the management of climate change threats on Aotearoa New Zealand's terrestrial native biodiversity,⁵² and this could equally be applied to freshwater and coastal biodiversity. It comprises five broad national-level strategies that cover a range of conservation management actions, from research and development, through to management and awareness raising. The strategies are:

- Improve knowledge of the impacts of climate change on species and ecosystems
- Develop decision support tools and adaptation methods
- Incorporate climate change adaptation strategies into existing management and research programmes, planning and policy
- Improve management and restoration of existing species and ecosystems to facilitate resilience to climate change



Estuarine communities are particularly threatened by sea level rise, Motueka Estuary

- Raise awareness and understanding of the impacts of climate change on biodiversity.

McGlone and Walker note that the best defences against biodiversity loss due to climate change are those actions being undertaken now to prevent biodiversity loss due to ongoing pressures of pests, weeds and land use change.⁵³ However, within coastal ecosystems, purchase of land for coastal reserves ahead of need, removing inappropriate anthropogenic hard structures, and preventing further hardening of the coastal area are also priorities.

Allowing indigenous species and habitats to adapt to climate change hazards will require a reframing of how nature is viewed and valued, especially when the adaptation of nature conflicts with the protection of property. How this might be achieved remains a central question in climate change environmental management, and one for which there is no simple answer.

10.4 Funding managed retreat of nature

Actions to support the managed retreat of nature, or the post retreat restoration of vacated lands, will need to be properly funded. McGlone and

Walker note that current funding is insufficient to address existing threats to New Zealand’s biodiversity, let alone new initiatives that will require implementation at a national scale and across multiple ecosystems. It is important that initiatives to support nature within a managed retreat framework do not occur at the expense of addressing current threats to biodiversity. This indicates a need to significantly increase biodiversity funding in response to a climate changing world.

Questions for discussion:
How can nature best be factored into managed retreat policies?
What accommodation might need to be made for species and habitats to move?
To what extent should nature be prioritised when planning for managed retreat?
How can conflicts between the needs of nature to adapt and the desire of people to protect property be resolved?
How can actions to assist nature to adapt best be funded?

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11 Managed retreat and infrastructure



Northern motorway, Auckland

In simple terms infrastructure consists of structures that enable the movement and operation of services that people need. At its core, infrastructure is about interconnection. Figure 7 illustrates how infrastructure draws on different strands of social, financial, human and natural capital to create six categories of services that people rely on:¹

- Telecommunications: broadband, fixed line and mobile
- Energy: electricity, oil, gas, hydrogen and other fuels
- Water: drinking water, waste water, stormwater, flood protection, water storage and irrigation
- Waste and Resource Recovery: landfill and recycling facilities
- Transport: land, aviation and maritime
- Social: housing, health, aged care, education, skills and research

A fuller picture in Figure 7 would bend the arrow back around to the strands to show how infrastructure in turn acts on the four capitals. For example, 'optimised' human capital depends on services such as clean and safe drinking water, functioning schools and hospitals, transportation and efficient modes of communicating.

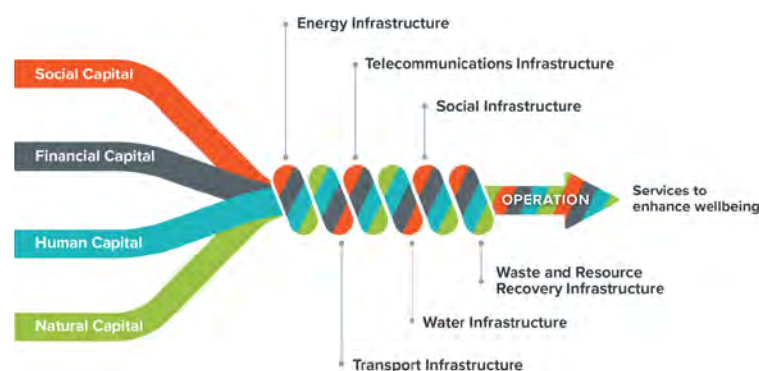


Figure 7: The components of infrastructure (Source: Infrastructure Commission Te Waihangā)²

Ownership and operation of infrastructure spans the public and private sectors. Energy and telecommunications are provided by private entities. Local and central government generally own and operate water, waste, transport and social infrastructure. At an asset level there is a nexus of inter-sectoral contracts and different models of ownership. For example, waste depots and landfills are generally owned by councils, but waste services can be contracted to private providers. Responsibility for municipal waste lies with local government but farm waste is the responsibility of private land holders. The complexity in the provision of infrastructure is further illustrated by the complex arrangements involved in the provision of airport services.

Airports are partially owned by local government but with private sector and central government investment. For example, the airports at Whanganui, Taupō, Whakatāne, Westport and Whangarei are 50 per cent owned by the relevant local council with central government owning the remaining share. Auckland Airport is a publicly listed company with Auckland Council as a major shareholder (22%). Wellington is 66 per cent privately-owned and 34 per cent owned by Wellington City Council. Christchurch Airport is 75 per cent owned by Christchurch City Council and 25 per cent owned by central government.

There are numerous independent infrastructure-related companies and agencies operating at airports. Some of the independent bodies operating there include the Civil Aviation Authority which provides security, Airways NZ which undertakes air traffic control, ground handling contractors which undertake baggage handling for airlines, border control agencies such as Customs, Biosecurity and Immigration, and the private sector OCS Group which cleans the airport lounges, food courts and washrooms. The airport company does not directly control all such operations but facilitates collaboration and co-operation to ensure efficient airline operations and passenger travel. Funding comes from a mix of central government, private equity and user charges.

11.1 Infrastructure climate risks

Climate change will expose infrastructure to ongoing sea level rise, more frequent and extreme storm events and surges, and temperature increases. Risks includes higher groundwater, saltwater intrusion, coastal and inland flooding, landslides and droughts. Aotearoa New Zealand's geography, coupled with urban and rural development decisions, has created a network of infrastructure that is largely located on floodplains and/or the coast. Analysis of coastal flooding from 1 metre of sea level rise reveals that by 2100 over 1,441 kilometres of roads, 101 kilometres of railways, 72 kilometres of electricity transmission lines, 141 electricity structures, 14 airports and over 4,000 kilometres of three-water pipelines will be exposed and require some form of intervention from protection through to relocation.³

A study commissioned by Local Government New Zealand estimated that half a metre of sea level rise would affect infrastructure with a replacement value of \$2.7 billion, increasing to \$7.8 billion with sea level rise of 1.5 metres. Three waters infrastructure is at greatest risk with 6,000 kilometres of pipe exposed to a 1.5 metre rise.⁴ Such estimates do not include the other significant costs that will be incurred from climate risks and resultant managed retreat such as:

- Increased operational and maintenance costs



Wellington airport

- Costs of damage to infrastructure
- Planning costs for purchase and rezoning of land for new infrastructure corridors
- Interim interventions such as flood protection prior to managed retreat
- Costs of providing ongoing services to residents that do not choose to voluntarily retreat
- Forced abandonment of assets before projected (and costed) end of life
- Demolition and infrastructure removal costs and site and habitat restoration.
- Ongoing community engagement and consultation

Such costs need to be seen in light of the current substantial deficit in infrastructure investment. The Infrastructure Commission Te Waihangā recently outlined the severity of the deficit problem which will cost 0.7 per cent of GDP every year over a 30-year period to address.⁵ The impact of such deficit, in association with climate-related pressures, means that infrastructure in some areas is already failing.

When wastewater infrastructure fails, resulting in wastewater spills and overflows, the impact on Māori communities is felt far and wide. Freshwater and mahinga kai sources are degraded affecting the ability of the community to collect food. Cultural values can be negatively impacted when human waste considered to be tapu is mixed with special and sacred areas like urupā, marae and mahinga kai. Contamination of land or cultural sites can lead to declining mental, spiritual and physical health for Māori as well as impacting their connection to the land and sea.⁶

The extent of infrastructure exposed to climate risk varies by location. Napier, Lower Hutt and Christchurch are highly exposed, but the

challenges are also high in niche locations such as South Dunedin and Thames. For example, in South Dunedin water infrastructure (along with houses) is coming under significant pressure due to a confluence of factors such as tidal range, land subsidence and climate induced sea level rise, storms surges and rainfall.

Climate change impacts on stormwater and wastewater infrastructure can result in the corrosion of pipes and machinery from saltwater and sewage overflows through breakages and flooding. It can also disrupt the biological processes critical for treating wastewater. Connectivity of transportation networks can be disrupted by flooding, landslides and erosion of roads, leading to communities being isolated and transportation flows being blocked and/or delayed. Roading along with other lifelines utilities (gas, telecommunications, water, rail and electricity)⁷ are considered to be critical infrastructure essential for community well-being.⁸

11.2 Managed retreat of infrastructure

There are two different circumstances under which managed retreat of infrastructure might occur. The first concerns assets threatened by climate risks that need to be moved out of harm's way. The second is when infrastructure needs to move alongside communities undertaking managed retreat. An example of the first scenario is Transpower's national grid of transmission lines and substations, which are being impacted by coastal flooding, increased frequency of high impact (flood/wind) events and accelerated erosion.⁹ Transpower has identified the need to relocate some transmission lines into surrounding areas. However, such an exercise is not necessarily straightforward, as adjacent land may be subject to development restrictions such as those designed to protect outstanding natural landscapes.

Managed retreat provides the opportunity to improve the resilience of infrastructure through 'building back better'. However, in relocating infrastructure it is important to avoid mistakes of the past. For example, Māori have experienced confiscation and dispossession of land in the name of infrastructure. Roads (including those built by imprisoned Māori for military use during the New Zealand Land Wars) paved over extensive areas of land without consideration of its cultural importance.¹⁰

In Māori tradition, wai (water) was formed by the tears of both Ranginui and Papatūānuku in lamenting their separation (the Creation Story). That gift of water from these ancestors, that are connected to each person through whakapapa, is the lifeblood that sustains life and reminds Māori of their connection to whenua through whakapapa. Upholding and respecting Papatūānuku means that the connectedness of water bodies, both above and below ground, needs to be respected. Groundwater for Māori transcends denoted artesian systems that separate bodies of water. A particular location may sit outside a contamination zone in an artesian sense but for Māori the lifeblood is still affected. Similarly, infrastructure that interrupts the connectivity of water impedes the lifeblood. For Māori it is important to respect and maintain the ability for water to flow where it needs to flow.

When a community relocates, services will need to follow. However, voluntary relocation may also lead to some residents remaining in place, with local government having to provide services to both the new and old (risky) locations. There is also the issue of who is responsible for removing old infrastructure and remediating the land. For example, structures containing small amounts of hazardous material along the estuary edge of red-zoned land in Southshore, Christchurch were left for the council to deal with, despite central government (through the Canterbury Earthquake Recovery Authority) leading the managed retreat process. Another issue is the removal of roads after managed retreat. Under existing statutory provisions roads cannot be stopped if they are still required for access. If they are stopped, it is unclear who is responsible for removing tar and other hazardous material contained in the old roads.



Hauraki Plains drainage system, Waihou River

11.3 Funding managed retreat of infrastructure

Current infrastructure funding comes from central government (taxpayers), general and targeted rates (ratepayers), bank and government loans, and user charges (consumers). However as identified by Te Waihanga and Treasury in their recent 2022 Investment Statement, in order to close the current \$210 billion infrastructure deficit and respond with resilience to climate change and other demand and supply-side pressures, more options than the current funding sources are needed.

Rates will not be sufficient on their own to close the gap and have limitations due to local government politics, concerns about rate rises and affordability. New or enhanced funding avenues will be required to ensure infrastructure is effectively retreated. They could include:¹¹

- Pricing: congestion charging, road user charges and water metering
- Targeted rates: on wastewater and waste volumes
- Debt: using Special Purpose Vehicles via the new Infrastructure Funding and Financing Act 2020 which enables borrowing against accrued levies
- Private-public partnership: long-term contracts between government and the private sector for the provision of services

Many of the options may also have significant benefits for the environment by driving lower emissions, and water and resource use, while promoting the transition to a circular economy. Key to enabling the efficient use of funding is long-term planning, timing and co-ordination across the sectors. To the extent possible, the asset management cycle should take a long-range view, and align with the timing of managed retreat, to ensure that any investment is optimised and occurs at the same point that rebuild is required. Various infrastructure providers in the same area may also need to align their adaptation plans.

Questions for discussion:
1. What financial sources could be utilised to fund managed retreat of infrastructure?
2. To what extent should taxes and rates be relied on as opposed to user charging?
3. How does the current infrastructure deficit impact managed retreat?
4. To what extent is it desirable and practicable to 'build back better'?
5. How can long term planning for infrastructure better account for the need for managed retreat?

Endnotes

1 In this paper we focus on physical structures rather than social and cultural infrastructures. We have added 'green infrastructure' into the categories. We see green infrastructure as meriting special mention because of its potential to restore nature after retreat. Green infrastructure also brings co-benefits for humans such as health benefits, carbon sequestration, ecosystem services, landscape protection and enhancement, recreation and enhanced social/cultural connections

2 <https://www.tewaihangagovt.nz/assets/Uploads/Te-Waihangagovt.nz-Infrastructure-Under-One-Roof-2020.pdf>

3 This is based on data sourced from R Paulick, S Stephens, S Wadhwa, R Bell, B Popovich and B Robinson, 2019, *Coastal flooding exposure under future sea-level rise for New Zealand*, Report to Deep South National Science Challenge, at 33

4 Simonson T and G Hall, 2019, *Vulnerable: The quantum of local government infrastructure exposed to sea level rise*, Local Government New Zealand, Wellington, at 12

5 This includes transport, water, hospital, education and defences facilities. Private costs are excluded. See page 31 <https://media.umbraco.io/te-waihangagovt.nz-30-year-strategy/1sfe0qra/rautaki-hangagovt.nz-aotearoa-new-zealand-infrastructure-strategy.pdf>

6 <https://deepsouthchallenge.co.nz/wp-content/uploads/2021/02/Impacts-and-implications-of-climate-change-on-wastewater-systems.pdf>

7 <https://www.legislation.govt.nz/act/public/2002/0033/latest/DLM151443.html>

8 Critical infrastructure is defined as "Physical and digital assets, services, and supply chains, the disruption (loss, compromise) of which would severely impact the maintenance of national security, public safety, fundamental rights, and well-being of all New Zealanders", see <https://dpmc.govt.nz/sites/default/files/2019-07/Cyber%20Security%20Strategy.pdf>

9 See Transpower's submission at <https://environment.govt.nz/assets/publications/Files/National-adaptation-plan-Summary-of-submissions.pdf>

10 <https://www.nzta.govt.nz/assets/resources/research/reports/688/688-a-pathway-towards-understanding-maori-aspirations-for-land-transport-in-new-zealand.pdf>

11 <https://strategy.tewaihangagovt.nz/strategy>



12 Managed retreat and business

The Canterbury Plains are subject to drought which will likely increase under global warming (Rob Suisted)

12.1 Climate risks affecting business

Many businesses will be adversely affected by climate change although some may benefit. Climate change can impact businesses directly and through consequential cascading risks. In addition, climate risks can compound with other business risks to significantly impact business operations. Key risks facing businesses due to climate change include:

- (a). *Physical risks*: the forestry, fisheries, agriculture, energy, transport and tourism sectors are exposed to flooding, droughts, fires and storms. There are also risks from pests and diseases.
- (b). *Regulatory risks*: climate-related changes in legislative provisions and policies can affect businesses through impacting industry structures, competition dynamics, cost and pricing structures, property rights and access to natural resources.
- (c). *Market risks*: competitors may gain an advantage or investors may divest resulting in financial loss for businesses. This risk is particularly acute for financial services that are exposed to climate risk disclosure legislation but may also affect other businesses that appear as 'risks' on disclosure statements.
- (d). *Reputational risks*: such risks occur when a business fails to meet societal expectations. Damages often expand beyond the immediate affected parties or location. For example, Aotearoa New

Zealand's reputation could be at risk if an extreme flooding event leads to industrial pollution.

Relocation may be forced on businesses where more than one risk manifests and makes the situation intolerable. This can occur when severe damage occurs to physical structures (such as retail outlets or distribution warehouses), productive land or crops, and/or critical infrastructure. In addition, supply chain disruption, loss of customer base due to community or population dispersal, an increase in insurance premiums or withdrawal of insurance, and difficulty obtaining or servicing loans may also impact a business.

If not managed well in advance, such factors could lead to loss of profitability, unemployment, decreased savings, increased debt and loss of livelihoods. The knock-on effects from unmanaged retreat could be a depressed regional economy, reduced exports, trade disruptions and a stressed financial system.¹ Some businesses may be able to adapt in an unmanaged retreat system, but they would fare better under a carefully, planned, well signalled retreat.

In the sections below we explore these risks in specific sectors before turning our attention to how such losses might be recompensed.

12.2 Agriculture

Primary industries may have to relocate parts (or the entirety) of their operations if either their building facilities, infrastructure, supply chain access (including export or regional ports) and/or suppliers' lands and operations are adversely affected by climate change. Suppliers include not only farms contracted to supply meat, wool or dairy products, but also those providing feed, fertiliser suppliers, transport companies, veterinarians and meat processing plants.

Often overlooked is the full agricultural supply chain from the perspective of the animal. Animals are exposed to weather and rely on humans for food, water and shelter throughout their life cycle. Poor animal welfare and health leads to lower productivity in herds. Bobby calf mortality rates increase if long haul is undertaken in hot conditions, and if there is a road closure, this could lengthen the time taken to transport stock.

Fonterra provides a good example of such impacts. Its manufacturing sites at Edgumbe and Brightwater are located in low lying areas near rivers and have in the past been impacted by flooding events. Other sites in Northland are susceptible to drought including at Kauri and Maungaturoto. Fonterra needs water for its plants to operate, and has at times had to transport water, which is costly. Beyond its plants, Fonterra's supplier farmers are exposed to inland flooding in Westland and Manawatu and to drought in the northern part of the North Island and on the Canterbury plains. Irrigation may not be a financially viable solution for existing drought-prone farms. Stock can also risk being stranded or cut off from feed sources. If this occurs during the calving season, or winter, then stock may be lost. Heat stress reduces milk production. Farms are also increasingly exposed to new pests and diseases.

Beef and sheep farms, and associated companies, face similar risks to the dairy industry. Many farms are located in areas with low population density and are not easily accessible. They are highly dependent on infrastructure (roads, power, internet and flood protection works) and some farmers contribute to maintaining roads. The costs of this could increase significantly if local councils reduce or cease funding. Likewise, water access and availability could be at risk in some areas already prone to drought. This could severely curtail the productivity and profitability of some farms.

Aside from the direct physical and financial risks, there are reputational risks that could further push farms to relocate or cease operating. Animal welfare and unchecked biosecurity outbreaks could affect consumer

perception and market access, leading to reputational damage. A knock-on effect could be consumer boycotts, negative media and unwanted civil society attention. Reputational damage often leads to new regulations and compliance requirements, which in turn increases operational costs. In such situations, managed retreat may be forced on farms and businesses as a result of compounding impacts.

12.3 Horticulture

Horticulture is heavily reliant on access to highly productive land and infrastructure (including roads and buildings), which in coastal and flood prone areas is vulnerable to extreme weather events and sea level rise.² Horticulture crops are generally grown on flat land which can be particularly vulnerable to flooding from adjacent waterways and sea and storm surge.

Only 15 per cent of the country's total land area is classified as highly productive (Land Use Capability Classes 1, 2 and 3) and significant areas of this land are situated in coastal and flood prone areas. Unlike buildings, highly productive land cannot be relocated. Once degraded, it is very hard to recover. Using land that is not highly productive for horticulture results in lower yields unless more intensive land management approaches are adopted. Intensive land management can mean greater inputs of fertiliser and water to get the same yield per hectare as that of highly productive land, risking the quality and health of soil and waterways.³

Not all fruit and vegetables can be grown on the same highly productive land. Different fruit crops require different climates and soils. For example, kumara are grown in Kaipara, avocados in Northland, citrus in Gisborne, kiwifruit in Bay of Plenty, apples in Hawkes Bay and Nelson, and apricots in Central Otago. Eighty per cent of vegetables grown throughout the country make up the year-round supply of fresh vegetables for the domestic market. Aotearoa New Zealand's national food supply and domestic food security will become more important with population growth, requiring greater protection and availability of highly productive land.

Extreme weather events that destroy food crops are expected to become more frequent and intense in the coming years. Climate change impacts will mean that some growing operations will cease to operate which will reduce the domestic and export supply of fruit and vegetables. This will, in turn, cause financial impacts throughout the supply chain and result in higher prices for consumers.

Horticulture in the Hawke's Bay region is particularly susceptible to climate change impacts, including flooding risk, due to its location on flood plains.⁴ Rivers already flood every winter when a storm brings more rainwater than can soak into the soil. The region is an important food growing hub and managed retreat from flood prone areas could have an extreme effect on the regional economy and people because:

- 16,800 hectares of commercial fruit and vegetable production are located on the Heretaunga Plains
- Food production in Hawke's Bay accounts for 52.5 per cent of the region's GDP
- Hawke's Bay produces 61 per cent of the country's apple and pear crops, 70 per cent of summer fruit and 50 per cent of the squash crop.
- Heinz Watties and McCains, two of the large post-harvest facilities located within the region, employ over 1,800 people

While horticulture buildings (such as processing centres and post-harvest facilities) are covered by insurance, growers do not generally have insurance for crops due to lack of affordability and/or cover by insurance companies. The land is the basis of the grower's income source, and is treated as an investment, similar to residential housing. With advances in technology and growing systems, covered cropping (greenhouses) are becoming more prevalent, and may be an alternative for growers. But not all horticulture is suitable for covered cropping such as kiwifruit, citrus, avocados, cherries and broad acre vegetables. In addition, many crops cannot be grown at the same scale and therefore generate the same returns as achieved in outdoor production.

12.4 Fisheries

The ocean has absorbed about 90 per cent of the excess heat humans have generated since the 1970s.⁵ This has resulted in sea level rise, heatwaves and ocean acidification. Marine biodiversity, and the lives and livelihoods of coastal communities, will be severely affected as the climate nears 1.5 degrees. Increased temperatures will continue to impact marine species even if emissions are stabilized.

It is expected that with warming waters invasive species will displace existing species, aquaculture production will be reduced, and fisheries operations and supply chains will be disrupted.⁶ Seawater acidification is

likely to adversely impact a range of harvested species including kina, paua and mussels where acidity can stunt shells and weaken growth. It is also likely to affect other species such as snapper, which may be smaller as a result and have physical deformities.⁷ More intense storms will also put the health and safety of employees at risk. It is likely that some aquaculture operations will have to relocate. These dynamics are acute for Māori who rely on economic and cultural connections to kaimoana.

The salmon aquaculture industry is already having to contemplate relocation. Salmon cannot survive in temperatures over 18 degrees. Seawater temperatures have been rising above this level in the Marlborough Sounds over the summer. In 2021, a marine heatwave led to over 1,000 tonnes of salmon dying in New Zealand King Salmon's Marlborough farming operations. The company reported a \$73 million loss for the year ending January 2022⁸ and is currently constructing a farm in the Cook Strait where the temperature is cooler.

Ngāi Tahu's Hananui Aquaculture and Sanford also intend to farm salmon in deeper, cooler waters offshore.⁹ These shifts may affect local communities that are reliant on existing aquaculture operations for incomes and jobs. Some jobs may be lost as a response to reduced profit and productivity. For example, New Zealand King Salmon reduced its workforce by 139 to absorb the financial impact of fish deaths.¹⁰

12.5 Tourism

Climate risks to tourism includes floods, droughts, increasing temperatures, coastal erosion and biodiversity loss. These have already led to shortened snow seasons, glacier melts and kauri dieback. These risks can be classified as primary, secondary or tertiary effects.¹¹ Primary effects are the direct impacts on tourism activities from climate change such as through changes in temperature and the weather. Secondary effects describe changes in the landscape or nature because of climate change. For example, coastal erosion from sea level rise, storm surges and tides could make some beaches inaccessible or dangerous to tourists. Recreational fishing in rivers may not be viable due to intense inland flooding. Tertiary effects encompass the impact of policies on tourism such as those aiming to mitigate emissions impacting travel patterns. One or more of these effects could catalyse businesses to relocate or cease trading.

In October 2022 Ruapehu Lifts Limited went into voluntary administration citing three years of disastrous ski seasons due to the lack of snow and the Covid-19 pandemic. The company had up to 700 employees and brought an economic benefit of around \$100 million to the region. The company does not appear to have fully grasped the potential impacts of climate change on its business, with climate change failing to get a mention in its most recent annual report.¹²

Tourism is not unified under one industry representative body nor guided by a dedicated government agency like agriculture or fisheries. Similar to other sectors, tourism comprises many small-to-medium-size enterprises, some of which do not have the resources to invest in long-term strategic planning or risk management. They also may lack the ability to influence local or central government investment decisions on infrastructure and the natural environment.

Since 2008, the Franz Josef glacier has retreated 1.56 kilometres, the fastest rate ever recorded. About 500,000 international tourists come to the Westland District every year and Franz Joseph's resident population of about 400 reaches 1,000 with seasonal workers. The economic impact of tourism to the glaciers is estimated at \$120m per year with 90 per cent of residents working in the tourist industry.

Climate change is not only impacting the glacier, but also increasing flooding, affecting access to the glacier and the financial viability of farms on the Waiho river flats. In March 2019, the road to Fox glacier was closed by the Department of Conservation following flooding and landslips from an extreme rain event. The cost to repair of \$16 million was considered unsustainable given the high likelihood of a recurrence.¹³ Farms and landowners on the Waiho flats are now seeking flood protection with the airport also at risk.¹⁴

Further compounding the risks, the town straddles the 800 kilometre Alpine Fault line,¹⁵ and there is currently a 75 per cent probability of an earthquake during the next 50 years, with an 82 per cent chance that this will be over M-8. These combined risks, along with adverse impacts on tourism from the ongoing, slow retreat of the glacier, strongly suggest that managed retreat should be considered as an option for the town.

12.6 Banking

Aotearoa New Zealand has 27 registered banks, with four large Australian-owned banks (ANZ, ASB, BNZ and Westpac) responsible for 85 per cent of bank lending. Loans and advances account for around 80 per cent of banking system assets.¹⁶ Two thirds of lending is in the residential market, reflecting a preference for home ownership as an investment option in Aotearoa New Zealand. As house prices have increased, so has aggregate household wealth, with housing now accounting for over 50 per cent of domestic household assets. As such, the value of the housing stock sits at around \$1.5 trillion, five times the size of the country's GDP, and comparably high among OECD countries.¹⁷ This means that the physical impacts of climate change create a significant risk to many homeowners and those banks and insurers that lend on or provide insurance over the property.

In their climate risk disclosures, the major banks which hold close to 85 per cent of the country's market share, all indicated that on average two per cent of their residential portfolios are exposed to coastal flooding. This creates a risk of credit loss to the banks, and consequent reduction in liquidity, with potential flow on effects to the wider economy. Options to mitigate this financial risk for banks include altering the loan to value ratios (thereby increasing the level of equity a homeowner has in the property) and shortening payment periods thereby reducing the loan term.

The response of banks to managed retreat has yet to be properly tested. Westport is an example of a town where residents remain in a high-risk location after repeated flooding events and where managed retreat is being contemplated in the future. After the most recent flooding event, banks followed an emergency assistance approach offering customer support including through case-by-case emergency measures, temporary suspension of home loan principal repayments and access to overdrafts at reduced interest rates. Business and rural customers were able to access working capital facilities.¹⁸ Banks are continuing to offer mortgages in Westport. In response to the Christchurch earthquakes in 2011-2012, banks adopted a similar approach, supporting red-zone homeowners in a number of ways, including through committing new residential mortgage lending, discounting mortgages to help relocation, providing flexible repayment terms and waiving application fees.

Banks have yet to develop funding options for managed retreat but could potentially adopt a more proactive and targeted approach to supporting customers than that currently provided following an emergency. Assuming a government compensation scheme was in place to purchase

at-risk property, banks could incentivise customers to move to safer locations. For example, they might offer discounted rates on loans on the relocated property. This would be similar to sustainability-linked loans which are currently being offered and allow borrowers to access cheaper finance conditional on sustainability targets being met over a period of time. It would recognise that impacted customers need time to transition and that there is joint benefit for the bank, borrower and wider financial system in taking a longer-term view. Banks could also play a stewardship role by helping to inform customers about climate risks and options for managed retreat.

The government and Reserve Bank could support investment in adaptation by banks, through policy settings which reduce the risk or cost of bank lending, including through providing government guarantee schemes (where the government partially underwrites the risk on bank lending on targeted investments), reducing Reserve Bank capital requirements, and providing access to cheap central bank funding facilities.

Banks must currently comply with responsible lending obligations including assessing affordability. This can create a barrier to lending money to customers taking measures to make their property more resilient, or those

wishing to relocate. This is particularly the case for lower income borrowers and those whose property has suffered a reduction in value.

12.7 Insurance

Aotearoa New Zealand's insurance sector includes general, life and health insurers. All three are exposed to the impacts of climate change, but only general insurers have a direct interest in managed retreat due to their exposure to property damage. The general insurance sector is made up of both private and government-owned insurers, with there being about 89 licensed insurers in New Zealand, 55 per cent of which are foreign owned. The private general insurance sector has assets of around \$27 billion, which represents 7.5 percent of the country's GDP. Foreign-owned insurers account for about 85 per cent of these assets.¹⁹

General insurers are impacted by effects of climate change in three main ways: changes in the volume and value of *claims* made by their customers due to more frequent and extreme storms, floods and other events; changes in the value of their *investments* due to the impacts of climate change; and the direct impact of events on their *business operations*.



The economy of Franz Joseph is affected by the retreat of the glacier and the town is also at risk from flooding and seismic risk

General insurers provide two general types of insurance that are relevant to climate change:

- *Property insurance*: which protect individuals and businesses from financial losses arising from damage to their property, including damage caused by climate-related natural hazards.
- *Liability insurance*: which protects individuals and businesses from financial losses arising from their involvement in damage to other people's property.

The cost of financial losses incurred by insurance companies is met, in the first instance, from the premiums paid by policyholders. When losses are sufficiently large, they may be paid for by reinsurers (with whom insurers insure themselves), or by investors through reduced dividends or ultimately through the loss of capital. Claimant policyholders will often have to contribute a small amount in the form of their policy excess.

Over the past 10 years the total cost of climate-related insurance claims has exceeded \$2 billion.²⁰ Two of the country's largest general insurers have recently highlighted the potential growth in these costs. IAG New Zealand expects claim costs (excluding those arising from the impact of sea-level rise on coastal hazards) to increase by between 26 and 34 per cent by 2050. It expects this increase to be "broadly manageable across our portfolio through regular pricing and underwriting reviews and through our reinsurance and capital management activities".²¹ Although Suncorp has not reported on its exposure to New Zealand coastal hazards (taking a group level approach), it has stated that "over the next decade, an increase of less than 10 percent is expected in the combined, all-hazards average annual loss to the existing built environment due to climate change."²²

Like banks, the approach of insurers to managed retreat has not been tested. However, we can gauge potential responses from three examples: Christchurch, Matatā and Westport. In Christchurch, insurers paid more than NZ\$21 billion in claims arising from the 2011-2012 earthquake sequence.²³ EQC paid a further \$10 billion, bringing the total insured cost of the event to more than \$31 billion. A significant proportion of the cost to pay out red-zone homeowners in Christchurch was met through insurance, as most of the damage to homes and land was sufficient to warrant full payment by insurers (for the home) and EQC (for the land). Insurance is now unavailable for the 125 homes that remain in the red-zone. In Matatā,

IAG continued to insure its customers throughout the retreat process, adjusting the cover provided to reflect both the valuation of homes and the transfer of ownership to the Whakatane District Council.

Following the latest flood in Westport, insurers paid \$73.1 million in claims on house, contents and motor vehicle damage.²⁴ An additional \$24.1 million was claimed in areas outside of the town. IAG proposed a managed retreat programme for the most exposed properties, where claims payments could be redirected. However, this proposal was unsuccessful, so the insurance money was used to repair affected homes in situ. Most insurers, including IAG and Suncorp, continue to provide insurance to Westport residents in much the same way as they did before the floods. But Tower Insurance has since introduced risk-based pricing for floods leading to their customers in Westport paying more than those elsewhere.

The primary role of insurers in response to the effects of climate change is to help fund recovery from natural disasters through the payment of claims to affected households and businesses. Other options could be considered, including maintaining cover through pre-emptive managed retreat processes, redirecting claim payments towards the post-event relocation of homeowners, and helping to create the right public policy and planning environment for such options to be developed. More broadly, insurers could help educate the public about the risks they face, incentivise and reward good risk decisions through their pricing and underwriting, and potentially invest in the funding of risk reduction infrastructure.

12.8 Māori business

Māori hold concentrated interests in sectors exposed to severe climate change impacts including forestry, fisheries and other primary industries. Natural resource-based sectors dominate Māori investments, with interests in agriculture, fishing and forestry totalling \$23.4 billion (see Figure 7).²⁵ This includes \$8.6 billion in sheep and beef farming; \$4.9 billion in dairy farming; \$4.3 billion in forestry; \$2.9 billion in fishing and aquaculture; and \$2.6 billion in other agriculture (including horticulture). Māori are also significant tourism operators. For example, about six million visitors engaged in activities with or related to Māori tourism in 2017, generating \$1.7 billion in foreign exchange revenue and employing 14,000 people. Māori-led tourism has been identified by the government as an important area for growth in the sector.²⁶

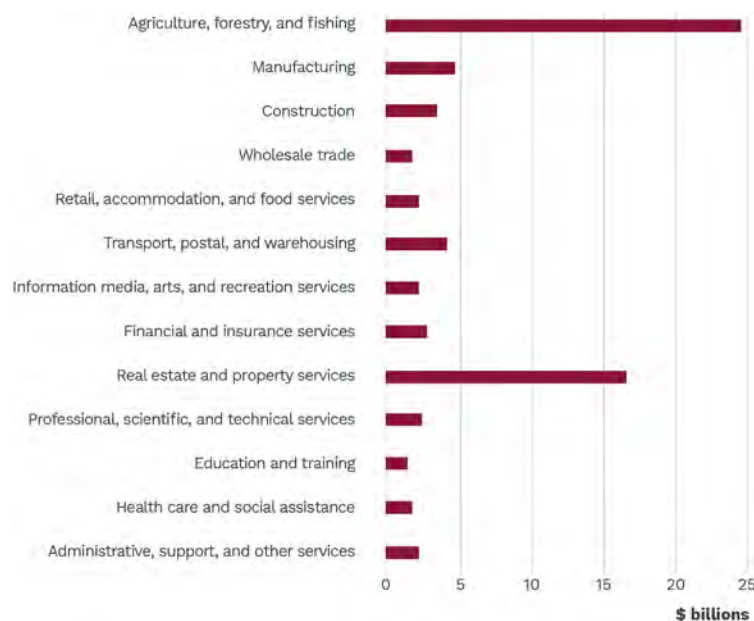


Figure 8: The value of different sectors in the Māori economy (Source: Reserve Bank of New Zealand)²⁷

12.9 Funding managed retreat for business

Like communities, businesses exposed to climate change may need to relocate. Relocation is costly, and a decision will need to be made as to whether businesses incurring losses as a result of managed retreat should be eligible for any public compensation. If homeowners who treat houses as an investment were to be compensated, should such funding similarly be extended to small business owners? After all, an individual may have chosen to invest in a business as opposed to a house.

There are many small to medium sized businesses that rely on income from land and/or landscapes that are unique and not easily substitutable. For example, crops require certain soils and climatic conditions to grow economic yields. Fish species can only grow in specific habitats and temperatures. Suitable locations for ski fields are limited. There may simply not be the waterways, landscapes or productive land available to relocate business to. There is also the issue of continued availability of supporting services, capital (human and natural) and infrastructure. Some businesses need an accessible customer base to be profitable such as supermarkets, restaurants, cafes and hotels.

All these variables mean that businesses may face issues, stemming from climate change impacts, that are not directly within their control. If roads to regional ports are damaged from landslips following an intense rain event this could impact the ability of a business to meet customer orders in export markets. Downstream this may lead to lower inventory and empty retail shelves. Consumers may decide to 'try' the other brand and permanently switch. Customers are likely to respond to shortage of supply by seeking to diversify suppliers to ensure reliable supply. These knock-on effects represent cascading risks to businesses from multiple sources.

The overriding question, in this context, is whether private enterprise is seen as separate to private asset ownership. Although there is an argument for compensating at least some businesses, this could also be viewed as market interference. Should businesses be assisted to move because they contribute to the economy and society? Or should they be left to fail, because they are not climate resilient, thereby freeing up resources for new enterprises which are? Further questions could be asked such as whether size (small, medium, large), employee numbers, location and ownership structure matter if businesses were to be compensated or assisted? Should iconic brands with high cultural value be compensated? Should low emitting and clean technology businesses be compensated over others?

Questions for discussion:

1. Should businesses be assisted in managed retreat and if so to what extent?
2. Should a market approach be adopted and businesses be left to fail?
3. How should Māori businesses be supported, if at all?
4. Should small enterprises receive compensation in a similar manner to homeowners (assuming they were compensated)?
5. Should some business sectors be assisted over others, and if so based on what criteria?
6. Should small business be supported above large business?

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13 Conclusions



Houses on the coastal frontline at Ocean Beach, Hastings

The impacts of climate change, and the need to move people, buildings and infrastructure out of harm's way, will be a significant challenge for Aotearoa New Zealand over coming decades. Managed retreat will be a costly process, but the overall societal costs should be significantly reduced in the longer term, if a well-designed, well-funded and well-managed approach is implemented by government in a timely manner.

This working paper has highlighted some key considerations that need to be addressed in designing such an approach. These include what the purpose of managed retreat should be, what worldview and principles might underpin policy, considerations around designing a public

compensation scheme for the loss of residential property, providing for nature in managed retreat and addressing impacts on infrastructure provision and business. Throughout all these sections we have specifically considered impacts on Māori and how these might be addressed. We have posed a number of questions at the end of each chapter which we welcome constructive feedback on.

The EDS project's second working paper will examine the extent to which current law and policy provides an adequate framework and tools to undertake such managed retreat at scale.

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Table of contents

Executive summary	vii		
1 Introduction	1	7.2 Consultative processes under the Local Government Act	39
1.1 Managed 'relocation' versus 'retreat'	1	7.3 Statutory planning under the Resource Management Act	40
1.2 Climate adaptation policy now urgent	2	7.4 Māori adaptation planning	40
1.3 Structure of working paper	2	7.5 Overall assessment	42
PART ONE: CURRENT PROPERTY AND RIGHTS FRAMEWORK		8 Rezoning hazard land	45
2 Common law	3	9 Acquiring properties and providing compensation	47
2.1 Tikanga	3	9.1 Property acquisition under the Public Works Act	47
2.2 The tort of negligence	4	9.2 Property acquisition under the Land Act	49
3 Land law	7	9.3 Property acquisition under the Local Government Act	50
3.1 Māori land	7	9.4 Property acquisition under the Urban Development Act	50
3.2 General land	8	9.5 Property acquisition under special legislation	50
3.3 'Taking' of land	8	9.6 Overall assessment	51
4 Other rights	11	10 Relocation and development of new settlements	55
4.1 Te Tiriti rights of partnership and active protection	11	10.1 Withdrawal of services	55
4.2 Human rights	13	10.2 Relocating away people from risky locations	57
PART TWO: LEGISLATIVE FRAMEWORK FOR MANAGED RETREAT		10.3 Settling people in new locations	57
5 Identifying and communicating climate risk	15	10.4 Overall assessment	58
5.1 National climate risk assessment	17	11 Clearing vacated land and ongoing land management	61
5.2 Land Information Memorandum	19	11.1 Demolition	61
5.3 Resource management plans	20	11.2 Road stopping	61
5.4 Infrastructure strategies	22	11.3 Reserve land	61
5.5 Overall assessment	22	11.4 Conservation land	62
6 Stopping development in hazard prone areas	25	11.5 Land Act and Treaty settlement landbank	62
6.1 Building consents	26	11.6 New Zealand Coastal Policy Statement restoration policy	63
6.2 Restrictive rules in RMA plans	28	11.7 Overall assessment	63
6.3 New Zealand Coastal Policy Statement	29	PART THREE: SUMMARY OF WEAKNESSES AND GAPS IN CURRENT LAWS	
6.4 National Policy Statement on Urban Development	31	12 Weaknesses and gaps in current law	65
6.5 Overall assessment	33	List of references	67
7 Undertaking adaptation planning	37		
7.1 National adaptation planning under the Climate Change Response Act	38		

List of figures

1	List of current legislation relevant to managed retreat	16	7	Summary of statutory provisions which can extinguish existing use rights in areas subject to natural hazards	46
2	Ten most significant climate risks in Aotearoa based on urgency	18	8	Summary of statutory provisions for property acquisition and compensation	53
3	Summary of statutory provisions for identifying and communicating climate risk	23	9	Summary of statutory provisions for relocation and development of new settlements	59
4	Summary of statutory provisions which can prevent development in areas subject to natural hazards	34	10	Summary of statutory provisions for clearance and ongoing management of land	63
5	Dynamic adaptive pathways planning approach	38			
6	Summary of statutory provisions for adaptation planning	43			

Abbreviations

Aotearoa	Aotearoa New Zealand	LINZ	Land Information New Zealand
DAPP	Dynamic Adaptive Pathways Planning	MBIE	Ministry of Business, Innovation and Employment
DOC	Department of Conservation	MFE	Ministry for the Environment
EDS	Environmental Defence Society	NBEB	Natural and Built Environment Bill 2022
EQC	Toku Tū Ake Earthquake Commission	NPF	National Planning Framework
ICCPR	International Covenant on Civil and Political Rights	NPS-UD	National Policy Statement on Urban Development 2020
LGA	Local Government Act	NZCPS	New Zealand Coastal Policy Statement 2010
LGOIMA	Local Government Official Information and Meetings Act 1987	RMA	Resource Management Act 1991
LIM	Land Information Memorandum	SPB	Spatial Planning Bill 2022
		Te Tiriti	Te Tiriti o Waitangi/Treaty of Waitangi

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EXECUTIVE SUMMARY

1 Introduction

In June 2022, the Environmental Defence Society (EDS) commenced a project titled *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future* to develop recommendations for the content of a new Climate Adaptation Act. This was in response to the expressed government intention to develop new law to address the complex and distinctive issues associated with managed relocation such as funding, compensation, land acquisition, liability and insurance.¹

In February 2023, EDS released its first working paper for the project. Titled *Principles and Funding for Managed Retreat*, the paper focused on conceptualising managed retreat and exploring what principles might underpin a new system and how it might be funded.² This second working paper focuses on describing and evaluating the adequacy of the current law and rights-based systems applicable to managed retreat. Working Paper 3, the final in the series, will present options to address gaps in the current system. The final report, which is due in late 2023, will contain concrete recommendations for the design of the Climate Adaptation Act.

As we outlined in Working Paper 1, 'managed' retreat involves the purposeful and coordinated movement of people and assets out of an area subject to significant hazard risk. Ideally it is pre-emptive, taking place before damage occurs, but it may occur post-event. In this working paper we use the term managed 'relocation' interchangeably with managed 'retreat'.

The Auckland Anniversary floods in January 2023, and Cyclone Gabrielle landing just a few weeks later, are a recent reminder of the urgency in considering managed relocation ahead of increasing climate risks. Treasury estimated that the damage caused by the two events could cost the country between \$9 and \$14.5 billion, with about half of this related to central and local government infrastructure.³ Such events are likely to be more frequent in a climate changing world.

PART ONE: CURRENT PROPERTY AND RIGHTS FRAMEWORK

At the very core of many controversies over climate adaptation and managed relocation is the relationship people have with land. This is because land-based property rights underpin our society and economy. There is also a history of dispossession of Māori land in Aotearoa which colours contemporary discussion on managed relocation policy. In this section we traverse land, Te Tiriti o Waitangi/Treaty of Waitangi (te Tiriti) and human rights frameworks

2 Common law

Tikanga was the first law of Aotearoa and is part of common law today. It is relevant in developing a new climate adaptation statute, both in terms of informing approaches to addressing climate risks to Māori, and in determining broader principles to underpin climate adaptation policy. The latter could include, for example, showing respect, generosity and care for people affected by climate risks (manaakitanga); maintaining relationships between people and a sense of community when seeking to move households out of harm's way (whanaungatanga); and recognising the need to care for the natural environment when considering managed retreat options (kaitiakitanga).

Tort is a branch of common law that provides remedies for civil wrongs. It is based on the underlying premise that when parties undertake a wrongful act that causes demonstrable loss or harm to others, they should be liable to pay compensation. People may seek to recover such losses under the tort action of negligence where it can be shown that the conduct of one party (such as the local council) results in a loss by another (a property owner).

It is not yet clear the extent to which an action in negligence could succeed on the basis that a council authorised development in a high risk zone, without undertaking due diligence, as such a case has yet to be brought before the courts. However, based on other relevant case law, it seems probable that a duty of care would be found in some cases. A key question is whether such liability issues should be left to be determined by the courts, which will almost certainly continue to develop this branch of the law, or whether they are better addressed by Parliamentarians in statute, such as the proposed Climate Adaptation Act.

3 Land law

Prior to colonisation, land in Aotearoa was communally held and managed based on tikanga. After the signing of te Tiriti, the Crown acquired large areas of Māori land both through purchase and later confiscation. Further land was lost to Māori after the individualisation of land title under the Native Lands Act 1862. Any proposals for managed relocation must be sensitive to this history of Māori land dispossession.

Currently only about 5 per cent of the country (some 1.47 million hectares) is "Māori land" and this is mainly held as "Māori freehold land".⁴

Administration of Māori land is overseen by the Māori Land Court under the Te Ture Whenua Māori Act 1993 with the objective of retaining Māori land in Māori ownership; facilitating its occupation, use and development; and protecting wāhi tapu.⁵

General land title in Aotearoa stems from English common law where land is ultimately held by the Crown and granted in the form of estates.⁶ There are four types of land estates: freehold, leasehold, unit title and cross lease. The importance placed on the ownership of land in Aotearoa is highlighted by the concept of indefeasibility of title, where the registered owner of land is protected against all claims that are not registered, as well as a state guarantee as to the accuracy of the registered rights.⁷ However, this does not mean that the state cannot ‘take’ land from property owners.

Compulsory acquisition of land by government is likely one of the most controversial issues in managed relocation. In the 2006 *Estate Homes Limited* case, the Supreme Court confirmed that there is no general right in Aotearoa to compensation where land has been taken, so long as the acquisition is authorised under statute. The court also made it clear that planning restrictions or conditions placed on the grant of resource consents do not amount to a ‘taking’ of land.⁸ This is reiterated in section 85(1) of the Resource Management Act (RMA) which states that “An interest in land shall be deemed not to be taken or injuriously affected by reason of any provision in a plan unless otherwise provided for in this Act”.

4 Other rights

Te Tiriti is a foundational constitutional document in Aotearoa’s legal system which establishes and guides the ongoing relationship between the Crown and Māori.⁹ Te Tiriti matters that will need to be considered in any managed relocation policy include protecting rangatiratanga, assisting Māori to access land required for managed relocation, ensuring that ongoing connections with land and other taonga are retained, and adequately resourcing iwi and hapū to undertake and implement

climate adaptation planning. Fundamental human rights will also need to be considered in any managed relocation policy including the right to natural justice, to civil proceedings and to judicial review under the New Zealand Bill of Rights Act 1990.

PART TWO: LEGISLATIVE FRAMEWORK FOR MANAGED RELOCATION

Currently there is no for-purpose legal framework for managed relocation in Aotearoa. Instead, there is a complicated bundle of statutory provisions that central government agencies and local authorities must navigate, in an *ad hoc* manner, in order to relocate people away from areas exposed to natural hazards. For the purposes of our legislative review, we have identified seven key types of actions associated with undertaking managed relocation, as follows:¹⁰

1. Identifying risk and communicating it to the public
2. Preventing development in hazard prone areas
3. Undertaking adaptation planning
4. Rezoning land to prevent occupation
5. Acquiring properties and providing compensation
6. Relocating people, buildings and infrastructure, and developing new settlements
7. Clearing vacated land and undertaking ongoing land management

A list of the relevant legislation we have reviewed is set out below. This is not exhaustive but is intended to provide an integrated sense of a body relevant law.

List of current legislation relevant to managed retreat

Legislation (in date order)	Agency	Relevance to managed retreat
Soil Conservation and Rivers Control Act 1941	Regional councils	Construction and maintenance of flood protection works
Land Act 1948	Land Information New Zealand	Acquisition, disposal and management of Crown owned land
Health Act 1956	Territorial authorities Director of Health	Requires properties to have adequate potable water and facilities for the disposal of wastewater Enables buildings to be closed where they are likely to cause injury to health or are unfit for human habitation
Local Government Act 1974	Territorial authorities	Management and stopping of roads
Reserves Act 1977	Territorial authorities Other management entities	Classification and management of reserve land by a range of parties
Public Works Act 1981	Land Information New Zealand Local authorities	Compulsory acquisition of land for public works and payment of compensation
Local Government Official Information and Meetings Act 1987	Territorial authorities	Preparation of Land Information Memoranda for individual properties which can include information on climate risk
Conservation Act 1987	Department of Conservation	Designation and management of conservation land
Resource Management Act 1991	Regional councils Territorial authorities	Management of land, water, air and coastal marine area; planning and consenting for activities including subdivision and urban development
Te Ture Whenua Māori Act 1993	Māori Land Court	Classification, protection and management of Māori land
Climate Change Response Act 2002	Climate Change Commission	Preparation of a national risk assessment and national adaptation plan every six years
Local Government Act 2002	Regional councils Territorial authorities	Sets out consultation principles and decision-making requirements. Provides for 10-year long term plans, 30-year infrastructure strategies and financial strategies
Civil Defence Emergency Management Act 2002	Director of Civil Defence Emergency Management Local Authorities	Provides broad powers to respond to emergencies
Building Act 2004	Territorial authorities	Ensures compliance of buildings with the building code
Urban Development Act 2020	Kāinga Ora	Separate regime for specified development projects including compulsory acquisition of land
Water Services Entities Act 2022	Water Services Entities	Must identify and manage natural hazard risks affecting water assets

5 Identifying and communicating risk

Identifying and communicating risk effectively is essential to any meaningful adaptation planning and managed relocation process. The information needs to be reliable and trusted and reflect the most up to date science. Although there is a robust framework for the preparation and communication of a regular *national* climate risk assessment, by an independent agency (the Climate Change Commission), there is no requirement of similar rigour at a regional or local level. Under current law, outside the coastal environment, no agency is obliged to regularly collect and make available natural hazard and climate risk information.

While proposed amendments to the Local Government Official Information and Meetings Act 1987 (LGOIMA) regarding the information presented on Land Information Memorandum (LIMs) for individual properties, should make these documents more informative, they will only contain the information that the territorial authority holds. Broadly speaking, they also only communicate information to those who order the document which are primarily prospective property purchasers. The Local Government Act (LGA) effectively places an obligation on councils to identify natural hazard

risks affecting infrastructure assets owned by them, which is important, but it does not extend to risks affecting assets owned by other parties.

The proposed new Spatial Planning Bill 2022 (SPB) and Natural and Built Environment Bill 2022 (NBEB) may result in more climate risk assessments being undertaken at a regional level. However, they fall short of placing a direct obligation on any particular agency to undertake regular regional risk assessments. They also provide no guidance as to how such assessments might be undertaken and on what basis. Such matters have been left to the National Planning Framework (NPF) rather than being provided for in the legislation itself.

The New Zealand Coastal Policy Statement (NZCPS) requires the identification of areas of the coastal environment potentially affected by coastal hazards over 100 years. It also requires national guidance and the best available information to be taken into account when doing so. It will be superseded by the NPF in the new resource management system and it is unclear to what extent its provisions may be retained or modified in future iterations of that document.

Summary of statutory provisions for identifying and communicating climate risk

Statute or policy	Effect
Climate Change Response Act	National risk assessment to be prepared 6-yearly by independent body and made public.
Local Government Official Information and Meetings Act	Inclusion of risk information on LIMs. Proposed amendments clarify and strengthen requirement to include risk information on LIMs, require regional councils to provide territorial authorities with the natural hazards information they hold, and reduce council liability associated with the provision of information. <i>Limitation:</i> No requirement to gather natural hazard information in the first place.
Resource Management Act	The NZCPS requires the identification of areas of the coastal environment potentially affected by coastal hazards over 100 years. It also requires national guidance and the best available information to be taken into account when doing so. The national planning standards require regional and district plans to include a chapter on natural hazards with coastal hazards to be included in a coastal environment chapter. Overlays are to be the prime spatial tool to identify risks in district plans <i>Limitation:</i> No explicit obligation for collection or communication of risk information although arguably this can be implied from council functions and prescribed content of plans.
Spatial Planning Bill and National and Built Environment Bill	Have stronger provisions around collection of information to inform strategies/plans, and further direction can be provided in the NPF. <i>Limitation:</i> The statutory provisions fall short of requiring regular regional risk assessments and providing minimum requirements for how they should be undertaken and what should be included in them.
Local Government Act Water Services Entities Act	Councils must identify and manage natural hazard risks affecting their infrastructure assets when preparing 30-year infrastructure strategies.

6 Stopping development in hazard prone areas

It is important to prevent new or intensified development occurring in high risk areas. Allowing an increase in the number of people, structures and assets located in risky areas will result in more people being exposed to harm (and in the worst cases death), unnecessary damage to property, and ultimately a need to relocate them out of harm's way.

The current legal framework is not well configured to stop development in hazard zones. The Building Act can be relied on to achieve this, to some extent, but only through the refusal of building consents when the safety of people is at stake. Its provisions do not enable building consent to be withheld when buildings alone might be subject to hazard damage. The Act is currently under review, but the scope of that exercise does not currently include hazard issues.

Under the RMA, councils can refuse to grant subdivision consent when there is a significant risk from natural hazards, but they are not required to do so. It will usually not be possible to exclude development and effectively 'downzone' land in a high hazard zone unless the council offers to purchase the property at market value and the landowner agrees.

The NZCPS provides some clear directives on avoiding redevelopment and land use change in coastal hazard areas. However, there is no similar

direction for how councils are to address natural hazards outside the coastal environment. In addition, the policies in the NZCPS may have been undermined (at least in practice) by the much more directive provisions of the NPS-UD.

The NPS-UD appears poorly configured to fully address natural hazards. Although providing for natural hazards as qualifying matters, when required density levels are reduced, the regime structure effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks through reducing density. It does however leave open the option for regional plans to address density in hazard areas. This bias for short-termism could be addressed when national policy is brought under the NPF.

The NBEB and SPB should improve the current situation. The NPF is required to provide direction on how to address natural hazards across the entire country and not just within the coastal environment. Regional spatial strategies will provide strategic direction on areas subject to significant natural hazard risks and measures for reducing those risks and increasing resilience. This provides an opportunity to identify areas where development should be excluded at a strategic level. The NBEB provides a stronger tool to acquire affected land, when it is to be downzoned, albeit with a requirement for market value compensation.



Collapse of Waikare Bridge after floods (Waka Kotahi)

Summary of statutory provisions which can prevent development in areas subject to natural hazards

Statute or Policy	Effect
Building Act	Can prevent building in areas subject to natural hazards by refusing to issue building consents. <i>Limitation:</i> Building consents can only be refused where the building does not comply with the Building Code and there is a risk of loss of life.
Resource Management Act	Councils can refuse to grant a subdivision consent where there is a significant risk from natural hazards but are not required to do so. Councils can rezone land in a district plan to make future development a prohibited or non-complying activity. <i>Limitation:</i> Rezoning can be successfully challenged where the zoning would render the land incapable of reasonable use and the council does not acquire the land under the Public Works Act (with compensation) by agreement with the land owner.
New Zealand Coastal Policy Statement	Requires councils to avoid redevelopment or land use change that would increase the risks of adverse effects from coastal hazards. <i>Limitation:</i> The NZCPS only applies within the coastal environment. It is also reliant on being implemented in regional and district plans. There is no national policy on natural hazards concerning other parts of the country.
National Policy Statement for Urban Development	Directs territorial authorities to provide for more intensive development in urban areas. <i>Limitation:</i> Although natural hazards can be used as a qualifying factor to reduce density, the policy creates significant hurdles to doing this.
National and Built Environment Bill	The NPF is required to provide direction on the management of natural hazards, potentially filling the current gap in national direction under the RMA. Land can be rezoned in a Natural and Built Environment Plan to make future development a prohibited activity. Where the zoning would render the land incapable of reasonable use, this can only be done where the council <u>offers</u> to acquire the land under the Public Works Act (with compensation).
Spatial Planning Bill	Regional spatial strategies must provide strategic direction on areas subject to significant natural hazard risks, and measures for reducing those risks and increasing resilience, so can provide a strategic planning approach to avoiding new development in risky areas.

7 Undertaking adaptation planning

A key component of a managed retreat process is adaptation planning which enables a community to design a response to growing natural hazard and climate change risks. A planning approach increasingly used in contexts of uncertainty and risk is Dynamic Adaptive Pathways Planning (DAPP). This identifies options and future response pathways, which can be adopted dependant on how the risk evolves in the future.

The Climate Change Response Act requires the preparation of a national adaptation plan in response to each six yearly risk national risk assessment. Local authorities must have regard to it when preparing RMA plans. The new national planning framework under the NBEB must not be inconsistent with it.¹¹ However, there is currently no statutory provision

for regional and local adaptation planning in Aotearoa. The LGA provides local authorities with a broad framework of consultation principles and decision-making requirements, but there is no explicit provision for implementation of an adaptation plan, including the provision of funding.

The new regional spatial strategies under the SPB should provide a spatial framework for adaptation planning. Statutory planning under the RMA (and NBEB) provides a vehicle for implementing parts of an adaptation plan, such as through providing a policy and rule framework for land use, but does not comprise adaptation planning itself.

The RMA and proposed NBEB provide several “hooks” for Māori adaptation planning to influence the statutory plans, but such linkages are not as strong under the LGA.

Summary of statutory provisions for adaptation planning

Statute or Policy	Effect
Climate Change Response Act	The Minister must prepare a national adaptation plan in response to the six-yearly national climate change risk assessment.
Local Government Act	Provides consultation principles and decision-making requirements for councils. Councils must prepare long term plans (time frame of at least 10 years) incorporating an infrastructure strategy (time frame of at least 30 years) and financial strategy. <i>Limitation:</i> No explicit framework for the implementation of DAPP plans.
Resource Management Act	The NZCPS provides a high level policy framework for managed retreat. Councils must prepare regional policy statements, regional plans and district plans which have at least a 10 year time horizon. When preparing plans councils must <i>take into account</i> relevant iwi planning documents lodged with them. Local authorities must have regard to the national adaptation plan when preparing regional and district plans under the RMA. <i>Limitation:</i> No explicit provision for development or implementation of adaptation plans.
National and Built Environment Bill	The NPF must not be inconsistent with the national adaptation plan. The first generation will likely incorporate the high level policy guidance in the NZCPS. Regional planning committees must prepare natural and built environment plans which have at least a 10 year time horizon. The Mana Whakahone a Rohe must record the agreement of the parties about how they will work together “on matters relating to climate change adaptation and natural hazards”. A regional planning committee must <i>have particular regard to</i> any relevant planning document recognised by an iwi authority which could include a tribal climate adaptation strategy or plan. An iwi or hapū may provide a statement on te Oranga o te Taiao to the relevant planning committee at any time.
Spatial Planning Bill	Regional spatial strategies must provide strategic direction on areas subject to significant natural hazard risks and measures for reducing those risks and increasing resilience so can provide a strategic planning approach to responding to natural hazards.

8 Rezoning land

As part of the relocation process, local authorities may decide to rezone or reclassify land so that it cannot be occupied for residential purposes in the future. We have already discussed the available statutory powers to ‘rezone’ land to prevent future development. We now turn our focus on the ability to apply more restrictive rules to developed land to prevent residential use from continuing. This raises the issue of the ability to remove what is termed ‘existing use rights’.

The RMA is protective of existing use rights. Section 10 provides that land may be used in a manner that contravenes a rule in a district plan, so long

as the use was lawfully established prior to the rule becoming operative (or a proposed plan being notified), and the effects of the use are of a similar character, intensity and scale. This means that it is not currently possible to exclude existing uses in a high hazard zone through changing the rules framework in a *district* plan. However, the protection of existing uses does not apply to rules in a *regional* plan.

That said, these rules are still subject to the section 85 restrictions on rendering land incapable of reasonable use (as discussed in section 6 above), so could potentially be successfully challenged on this basis by existing occupiers, in the same way that future developers can challenge restrictions on future development. This has yet to be tested in the courts.

The equivalent of section 10 of the RMA, which protects existing use rights, is carried over in clause 26(1) of the NBEB. It applies to plan rules within the jurisdiction of the territorial authority (so those contained in the former district plans). However, a new qualifying provision (clause 26(2)) has been added which requires an existing land use to comply with a plan rule that gives effect to the NPF as it relates to the “reduction or mitigation of, or adaptation to, the risks associated with” natural hazards and climate change.

This means that existing uses are no longer protected from plan changes required to reduce climate change risks including changing use. Notably, this only applies if the NPF expressly states that it applies, and is subject to the reasonable use requirement (as discussed in section 6 above) under clause 139.

Summary of statutory provisions which can extinguish existing use rights in areas subject to natural hazards

Statute or policy	Effect
Resource Management Act	Changing rules in a district plan cannot extinguish existing use rights. Changing rules in a regional plan, for the purpose of the avoidance or mitigation of natural hazards, can extinguish existing use rights. <i>Limitation:</i> The plan provisions are still subject to the section 85 qualification regarding reasonable use of land so may not be implementable in practice.
Natural and Built Environment Bill	Rezoning land in a Natural and Built Environment Plan, through a rule within the jurisdiction of a territorial authority, can extinguish existing use rights if it gives effect to the NPF, relates to the “reduction or mitigation of, or adaptation to, the risks associated with” natural hazards and climate change, and the NPF expressly states that it can do so. Rezoning land in a Natural and Built Environment Plan, through a rule within the jurisdiction of a regional council, can extinguish existing use rights if it is for the avoidance or mitigation of natural hazards. <i>Limitation:</i> The above powers are still subject to the reasonable use requirement under clause 139.

9 Acquiring properties and providing compensation

Any managed relocation policy will almost certainly require public bodies to voluntarily or compulsorily acquire private properties. We now review legal powers of acquisition as well as provisions relevant to compensation.

The Public Works Act provides strong powers for government and councils to compulsorily acquire land as well as to undertake voluntary purchases. What is unclear is whether the Act would apply to the purchase of land to effect managed retreat. In addition, the compensation requirements of current market value at the time of property transfer, are not well suited to the circumstances of managed relocation.

Although the Public Works Act enables Māori land to be compulsorily acquired, any use of this power in the context of managed retreat would need to be undertaken with extreme care, given the long history of Māori land dispossession in Aotearoa. In general, any acquisition of Māori land subject to natural hazards would need to be undertaken through a bespoke process, ideally led by the affected iwi, hapū or whanau.

The Land Act provides broader powers for land acquisition which might suit managed relocation. However, the powers can only be exercised by the Commissioner for Crown Lands (and not local authorities) and land can only be acquired on a voluntary basis. The amount of compensation paid is left to negotiations with the property owner but needs to be informed by a valuation.

Local authorities can acquire land on a voluntary basis using their general powers under the LGA. To do so they must follow the decision-making requirements under the Act, which include assessing alternatives in light of interested and affected parties’ preferences, and taking into account the relationship of Māori with ancestral land and taonga. There are no additional requirements for the amount of compensation offered.

While the more recent Urban Development Act 2020 has strong land acquisition powers, they are designed for creating new urban settlements, not for removing existing settlements due to hazards. Historically, land has also been acquired under special legislation, a recent example being the offers made to property owners in the Christchurch red zone under the auspices of the Canterbury Earthquake Recovery Act 2011.

In summary, there is a gap in the legislative framework, in providing fit for purpose tools to compulsorily acquire land, and in providing a framework for compensation which accounts for the circumstances of managed relocation.

Summary of statutory provisions for property acquisition and compensation

Statute/Policy	Effect
Public Works Act	Enables compulsory acquisition. Will apply when land is downzoned under the RMA (or NBEB) but only for property acquisition with landowner agreement. <i>Limitations:</i> Act may not apply to managed retreat as unclear whether this would be captured in the definition of “work”. Provisions basing the quantum of compensation on current market value are likely inappropriate for managed retreat.
Te Ture Whenua Māori Act	Seeks to retain Māori land in Māori ownership and enable its utilisation for the benefit of its owners, their whanau, and their hapū, implying that Māori land should only be acquired in exceptional circumstances.
Land Act	Could apply to managed retreat but only enables the Commissioner of Crown Lands to acquire land, not local authorities. <i>Limitation:</i> Does not authorise compulsory acquisition.
Local Government Act	Local authorities have broad powers to acquire property under the Act but need to comply with a prescribed decision-making process. <i>Limitation:</i> Does not authorise compulsory acquisition.
Urban Development Act	The Minister of Land Information can voluntarily and compulsorily acquire property under the Act. <i>Limitation:</i> Only for the purposes of facilitating urban development, not removing settlements.
Special legislation (Canterbury Earthquake Recovery Act – now repealed)	Gives the Crown very broad powers to voluntarily and compulsorily acquire land which apply to managed retreat. <i>Limitation:</i> Like the Public Works Act, provisions basing the quantum of compensation on current market value are inappropriate for managed retreat (and were not used in practice as all land purchase was voluntary).

10 Relocation and development of new settlements

The process of relocating people, buildings and infrastructure raises some difficult issues as does providing new settlements for people who have relocated from high risk areas. Major issues include the potential withdrawal of utilities and services, excluding people from occupying properties in hazardous areas, and opening up new places for people to live.

There is no obligation on councils to protect private property from coastal erosion or to maintain existing coastal protection works. The situation is somewhat different for flood protection works managed under the Soil Conservation and Rivers Control Act 1941 where the regional council

is effectively required to keep them under good repair or be liable for property damage.

With the exception of water services, it is possible for councils to withdraw most services (including roading), so long as they follow the correct decision-making process. Water services are more difficult to withdraw, which is understandable given the public health and welfare implications of their removal.

There are strong statutory provisions for moving people away from unsafe homes and buildings, particularly in the context of an emergency.

However, they are designed to be short term measures and are not well configured for managed relocation, especially if it is pre-emptive.

The Urban Development Act provides a set of powerful tools to undertake urban development in an integrated manner. These tools

could be deployed to provide new settlements for those relocating away from hazardous areas. Such development could also potentially be undertaken under the Land Act, through Land Information New Zealand (LINZ) although its provisions are dated and not as well configured for this purpose.

Summary of statutory provisions for relocation and development of new settlements

Statute or policy	Effect
Local Government Act (2002)	All decisions to significantly alter the intended level of service for a significant activity need to be explicitly provided for in a council's long term plan and be consulted on. Where a council currently supplies water services to its communities it must continue to do so (unless it services 200 or less residents and a set of robust criteria are met).
Soil Conservation and Rivers Control Act	Councils must effectively maintain existing flood control works or be liable for resultant property damage
Local Government Act (1974)	Councils have the <i>power</i> to construct, upgrade and repair roads but have no obligation to do so.
Resource Management Act	There is no duty on councils to protect properties from coastal erosion or to maintain existing coastal protection works.
Civil Defence Emergency Management Act	People can be directed to evacuate premises or places where necessary for the preservation of human life during a state of emergency.
Building Act	Councils must adopt a policy on dangerous and insanitary buildings within their districts. Councils can prevent entry into buildings that are considered dangerous or insanitary. This is primarily to protect human life and safety rather than the buildings themselves.
Health Act	Councils and the Director-General of Health can require repairs to be undertaken on buildings unfit for human habitation, and if they are not done, prohibit use of the building for residential use.
Urban Development Act	Land can be acquired, developed and disposed of to facilitate new urban settlements. Kāinga Ora can manage the development process (including the provision of infrastructure and funding), standing in the shoes of the council, and subject to a development plan
Land Act	Land can be voluntarily acquired and development by LINZ but the provisions of the Act are somewhat outdated and not entirely fit for purpose.

11 Clearing vacated land and undertaking ongoing land management

Once people have moved from a hazardous area, the land will need to be cleared and arrangements made for its ongoing management. Land can be cleared and rehabilitated under various statutes. The Building Act controls demolition, and roads can be stopped under the Local Government Act 1974, provided they are no longer needed for access. The NZCPS provides a framework for the restoration of coastal land.

The cleared land could be managed by councils and/or other entities such as iwi/hapū under the Reserves Act (although there is no specific reserve category for restoration or managed retreat/realignment) or by the Department of Conservation (DOC) under the Conservation Act. Land could also be placed in the Treaty Settlement Landbank in the interim. It would be useful to have a specific category of land, perhaps under the Reserves Act, that is focused on restoration and rehabilitation of natural ecosystems.

Summary of statutory provisions for clearance and ongoing management of land

Statute or policy	Effect
Building Act	Manages building demolition through the requirement to obtain a building consent.
Local Government Act (1974)	Enables roads to be stopped, but, in practice, only when they are no longer required for public access.
Reserves Act	Provides for the classification and management of reserve land “for the benefit and enjoyment of the public” by a range of parties which could include iwi/hapū entities. <i>Limitation:</i> Does not include a reserve that has as its purpose rehabilitation or managed realignment/ managed relocation.
Conservation Act	Provides for the management of conservation land for conservation purposes by DOC.
Land Act	Provides for land management by LINZ. <i>Limitation:</i> Has no purposes or principles to guide management decision-making.
Resource Management Act (New Zealand Coastal Policy Statement)	Unlike other statutory provisions, provides for the restoration and rehabilitation of natural character. <i>Limitation:</i> Only applies in the coastal environment and not throughout the rest of Aotearoa.

PART THREE: SUMMARY OF WEAKNESSES AND GAPS IN CURRENT LAW

12 Weaknesses and gaps in current law

We have brought together the conclusions from the analysis in previous chapters to identify some considerations when addressing gaps and weaknesses in the current legal and statutory framework for management retreat and designing the Climate Adaptation Act. These are:

1. Tikanga is the first law of Aotearoa. It provides key underlying principles which could usefully underpin climate adaptation policy and law.

2. Local authorities, specifically territorial authorities, could potentially be liable in common law negligence for granting building and resource consents for development in high hazard zones without due diligence. This potential liability could be reduced by statute on public policy grounds.

3. There is a long history of dispossession of Māori land in Aotearoa that forms the backdrop to any managed retreat policy. Māori currently own very little land which can make finding suitable sites for managed retreat problematic. Government assistance in securing new safe locations may be required.
4. Although freehold title in land is strongly protected in law, there is no general statutory protection against the taking of land for public purposes, although fair compensation will generally be expected.

5. Te Tiriti principles of partnership and active protection require the Crown to actively support Māori in adapting to climate risks including the managed retreat of marae.

6. Any managed retreat policy must honour fundamental human rights including the right to life, the right not to be subjected to degrading treatment, and the right to natural justice.

7. Although there is a robust framework for the preparation and communication of a regular national climate risk assessment, by an independent agency, there is not similar rigour at a regional or local level. Under current law, outside the coastal environment, there is no obligation on any agency to regularly collect and make available natural hazard and climate risk information.

8. The current legal framework is not well configured to prevent development in hazard zones. Only the Building Act can be relied on to achieve this through the refusal of building consents, but only when the safety of people is at stake.

9. Councils can refuse to grant subdivision consent under the RMA when there is a significant risk from natural hazards, but they are not required to do so
10. It will usually not be possible to 'downzone' land in a high hazard zone, to exclude development, unless the council offers to purchase the property at market value and the landowner agrees.
11. The NZCPS provides some clear directives on avoiding redevelopment and land use change in coastal hazard areas. However, there is no similar direction for how councils are to address natural hazards outside the coastal environment.
12. The NPS-UD appears poorly configured to avoid development in high hazard zones. Although it provides for natural hazards as qualifying matters, the regime effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks.
13. Although the Climate Change Response Act requires the preparation of a national adaptation plan, there is currently no specific statutory provision for regional and local adaptation planning. Councils can choose to undertake such planning as part of their broad capacities under the LGA, but there is no *explicit* provision for implementation including assigning responsibilities and securing funding.
14. No legislation is well configured for acquiring land exposed to hazard in the circumstances of anticipatory managed retreat. The Public Works Act and Urban Development Act are likely unsuitable. The Land Act (through the Commissioner of Crown Lands) or the LGA (through local authorities) could enable a mechanism for voluntary purchase, but neither would provide a suitable framework for compensation.
15. There is no obligation on councils to protect private property from coastal erosion or to maintain existing coastal protection works. However regional councils may be required to maintain flood protection works.
16. With the exception of water services, it is possible for councils to withdraw most services (including roading) from a site facing managed retreat, so long as a proper decision-making process has been undertaken.
17. In the context of an emergency, there are strong statutory provisions for moving people away from unsafe homes and buildings. However, they are designed to be short term measures and are unsuitable for managed retreat, especially if it is pre-emptive.
18. The Urban Development Act provides a set of powerful tools to undertake urban development in an integrated manner to provide new settlements for those who need to retreat from areas exposed to natural hazards. Such development could also potentially be undertaken under the Land Act, although its provisions are dated and not as well configured for this purpose.
19. The cleared land could be managed by councils and/or other entities such as iwi/hapū under the Reserves Act or by DOC under the Conservation Act. Land could also be placed in the Treaty Settlement Landbank. There is currently no specific category of land under the Reserves Act that is focused on restoration and rehabilitation of natural ecosystems.

Clearly that there are a number of gaps in the statutory framework for managed retreat. In Working Paper 3 we will be exploring options to fill them.

Endnotes

- 1 Ministry for the Environment, 2022, *Adapt and thrive: Building a climate resilient New Zealand: Draft national adaptation plan: Managed retreat*, New Zealand Government, Wellington
- 2 Access a copy of the paper at https://eds.org.nz/wp-content/uploads/2022/11/Climate-Adaptation-Working-Paper-1_FINAL.pdf
- 3 Ensor J, 2023, 'Budget 2023: Government's \$1 billion Cyclone Gabrielle and Auckland Anniversary floods package unveiled', *Newshub*, 14 May
- 4 <https://communitylaw.org.nz/community-law-manual/chapter-2-maori-land/status-of-maori-land/>
- 5 See Te Ture Whenua Māori Act 1993, preamble and section 17(1)
- 6 Bennion T, D Brown, R Thomas and E Toomey, 2009, *New Zealand land law (2nd Ed)*, Thomas Reuters New Zealand Limited, Wellington
- 7 <https://www.linz.govt.nz/our-work/property-information-system/land-transfer-system>
- 8 *Waitakere City Council v Estate Homes Limited* [2006] NZSC 112
- 9 See Williams B, 2015, *The struggle for sovereignty*, Bridget Williams Books, Wellington
- 10 For components see also Olufson S E, 2019, *Managed retreat components and costing in a coastal setting*, Masters of Science thesis, Victoria University of Wellington
- 11 Natural and Built Environment Bill 2022, schedule 6 clause 21

1 Introduction



Flooding of the road at Piha

In June 2022, the Environmental Defence Society (EDS) commenced a project titled *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future* to develop recommendations for the content of a new Climate Adaptation Act. This was in response to the expressed government intention to develop new law to address the complex and distinctive issues associated with managed relocation such as funding, compensation, land acquisition, liability and insurance.¹

In February 2023, EDS released its first working paper for the project. Titled *Principles and Funding for Managed Retreat*, the paper focused on conceptualising managed relocation and exploring what principles might underpin a new system and how it might be funded.²

This second working paper focuses on describing and evaluating the adequacy of the current law and rights-based systems applicable to managed retreat. Working Paper 3, the final in the series, will present a series of options to include in a new statute designed to address gaps in the current system. The final report, which is due in late 2023, will contain concrete recommendations for the design of the Climate Adaptation Act.

The working papers are designed to seek feedback on work in progress as we develop up ideas for incorporation into the final synthesis report. This working paper seeks feedback on the adequacy of the current legal and policy framework to support managed retreat and what weaknesses and gaps might need to be addressed by the proposed Climate Adaptation Act.

1.1 Managed 'relocation' versus 'retreat'

As we outlined in Working Paper 1, 'managed' retreat involves the purposeful and coordinated movement of people and assets out of an area subject to significant hazard risk. Ideally it is pre-emptive, taking place before damage occurs. We note that from now on we use the term managed 'relocation' interchangeably with managed 'retreat'. We consider that 'relocation' better describes the process we are concerned with but also acknowledge that managed 'retreat' is the term currently used by government and others to describe the process.

Our project is focused on developing a legal and policy framework for relocating people out of harm's way and to a safe place. The word 'retreat' connotes defeat where troops might retreat or withdraw while under fire from the enemy (which in this case is increasing climate risk). Such negative associations may not be helpful. It is important that communities feel empowered when they decide to move, and that they can see a pathway forward to a positive future. While no term is perfect, we

consider the term ‘relocation’ better represents such a positive approach to the process.

In addition, under a retreat scenario, the immediate imperative is to leave the current location, with the ultimate destination being a secondary consideration. Where people move *to* is as important to consider as where they move *from*. This is to ensure that the places people resettle are safe and sustainable in the long term thus avoiding a repeating cycle of build and then abandon.

1.2 Climate adaptation policy now urgent

The Auckland Anniversary floods in January 2023, and Cyclone Gabrielle hitting the country a few weeks later, are a recent reminder of the urgency to consider managed relocation ahead of increasing climate risks. During the cyclone, around 225,000 homes were without power, and thousands of people were displaced. The flash flooding and slips that resulted destroyed houses, roads, rail tracks and crops. Tragically 11 people lost their lives. During the Auckland floods Mangere received 849 per cent of its normal rainfall and, during Cyclone Gabrielle, Napier received over 600 per cent.³ By late March the insurance bill for the two events had reached \$890 million.⁴ Treasury estimated that the damage caused by the two events could cost the country between \$9 and \$14.5 billion, with about half of this related to central and local government infrastructure.⁵

In the media reporting on the impact of the Auckland floods, *Stuff* reporters revealed that there are some 55,000 houses located in flood zones in Auckland and, since the start of 2016, the Council had granted resource consent for 9,220 new houses to be built in flood plains.⁶ Clearly the policy settings have been inadequate regarding climate adaptation and the mitigation of risk. Any new climate adaptation policy will need to address this.

1.3 Structure of working paper

The structure of this working paper is as follows:

- *Part One* describes the current property and rights framework that will underpin any managed relocation policy in Aotearoa New Zealand (Aotearoa).
- *Part Two* describes the legal and policy framework that currently applies to managed retreat as well as the impact of current reforms to that framework.
- *Part Three* summarises the key weaknesses and gaps in the current system which will need to be addressed either in the new Climate Adaptation Act or through other legislative amendments.

Endnotes

1	Ministry for the Environment, 2002, <i>Adapt and thrive: Building a climate resilient New Zealand: Draft national adaptation plan: Managed retreat</i> , New Zealand Government, Wellington	4	Stock R, 2023, 'Insurance claims from Cyclone Gabrielle and Auckland flooding hit \$890 million', <i>Stuff</i> , 23 March
2	Access a copy of the paper at https://eds.org.nz/wp-content/uploads/2022/11/Climate-Adaptation-Working-Paper-1_FINAL.pdf	5	Ensor J, 2023, 'Budget 2023: Government's \$1 billion Cyclone Gabrielle and Auckland Anniversary floods package unveiled', <i>Newshub</i> , 14 May
3	Anon, 2023, 'Paying for adverse weather events', <i>POLITIKToday</i> , 28 April	6	Newton K, 2023, 'For sale: New, warm and dry homes. The catch? They're in a flood plain, and the flood is coming sooner than you think', <i>Stuff</i> , 12 February

2 Common law



Coastal erosion impacting houses at Hahei

In Part One of this working paper we explore common law, land law, Treaty rights and human rights relevant to managed relocation.

At the very core of many controversies over climate adaptation and managed relocation is the relationship people have with land. This is because land-based property rights underpin our society and economy. There is also a history of dispossession of Māori land in Aotearoa which colours contemporary discussion of managed relocation policy.

Land can provide a place to live, an investment opportunity and/or a place to do business. Around 64 per cent of all households in Aotearoa are home owners¹ and more than half of all household wealth (57%) is invested in land and houses.² Unsurprisingly, issues that impact residential property values are hotly contested. For many people, most of their life savings are tied up in their home.

Climate risk, adaptation and managed relocation challenge many of the assumptions that people have long held about property, that it is a solid and secure investment. After all, the phrase ‘safe as houses’ is used to refer to something that has little or no risk. With climate driven erosion and flooding, many houses will no longer be a safe investment, and they may eventually become unsaleable and uninhabitable.

For many people land is much more than an investment. Many Māori perceive their association with land in terms of belonging rather than ownership. This is reflected in the Māori word for land – “whenua” – which

also means placenta and the term for people – “tangata whenua” – which literally means “born of the earth’s womb”.³ Over time, Māori have named places of significance, and developed narratives, waiata, haka and other art forms which become part of the make-up of the tangata whenua and their inherent connection with the land. The loss of land can lead to a loss of connection, a loss of mana and a loss of cultural well-being. What happens to land impacts what happens to people.

Any statutory framework for managed relocation must overlay existing common law (the branch of Aotearoa’s law derived from custom and judicial decisions). In this section we examine tikanga and tort as two areas of common law particularly relevant to managed relocation.

2.1 Tikanga

Tikanga was the first law of Aotearoa and is part of common law today. It continues to shape and regulate the lives of Māori and some non-Māori. Tikanga includes all the “values, standards, principles and norms that the Māori community subscribe to, to determine appropriate conduct”.⁴ It is comprised of both practice and principle including manaakitanga and whanaungatanga; mana; tapu; utu; noa and ea; whakapapa; and kaitiakitanga which form an interconnected matrix “and cannot be defined in isolation or translated by a simple English word”.⁵ The Supreme Court has confirmed that:

... tikanga has been and will continue to be recognised in the development of common law in Aotearoa/New Zealand in cases where

it is relevant. It also forms part of New Zealand law as a result of being incorporated into statutes and regulations. It may be a relevant consideration in the exercise of discretions and it is incorporated in the policies and processes of public bodies.⁶

Tikanga is therefore relevant in developing a new climate adaptation statute, both in terms of informing approaches to addressing climate risks to Māori, and in determining broader principles to underpin climate adaptation policy. The latter could include, for example, showing respect, generosity and care for people affected by climate risks (manaakitanga); maintaining relationships between people and a sense of community when seeking to move households out of harm's way (whanaungatanga); and recognising the need to care for the natural environment when considering managed retreat options (kaitiakitanga).

As Justice Glazebrook noted in the *Ellis case*, tikanga principles and values can “provide a new vocabulary or new way of thinking about new concepts of law or a new intellectual framework for those concepts”.⁷

2.2 The tort of negligence

Tort is a branch of common law that provides remedies for civil wrongs. It is based on the underlying premise that when parties undertake a wrongful act that causes demonstrable loss or harm to others, they should be liable to pay compensation.

Climate risks can result in a reduction of property values and/or actual damage to land and buildings. People may seek to recover such losses under the tort action of negligence where it can be shown that the conduct of one party (such as the local council) results in a loss by another (a property owner). While untested on the specific facts of climate change, the action could be based on the ‘neighbour principle’ which is that people must take reasonable care to not injure others who could be foreseeably affected by their action or inaction. The loss does not need to be physical damage to property as such, but can be loss of value, so long as it is proven and can be attributed to a defendant that has a duty of care to mitigate it.⁸

To illustrate the elements of negligence it is useful to examine the foundational case, *Donoghue v Stevenson*. This decision by the United Kingdom House of Lords, in 1932, cemented the concept of ‘duty of care’ in the modern law of negligence (see spotlight below).⁹ At a broad level, the case illustrates the two necessary ingredients to establish a negligence

claim. Firstly it shows that the harm to the injured party (the plaintiff Donoghue) needs to be foreseeable by the allegedly negligent party (the defendant Stevenson). Secondly, it discusses how the relationship between the defendant and the plaintiff must be sufficiently proximate.

A spotlight on the foundational negligence case – *Donoghue v Stevenson*

In the Scottish town of Paisley, Mrs Donoghue went to a café to meet up with a friend. She ordered a ginger beer which arrived in a dark brown bottle. The waiter poured the ginger beer into a glass and Donoghue drank it. Upon refilling her glass, Donoghue was shocked to see the remains of a snail fall out of the bottle and into the glass. Shortly thereafter, Donoghue fell ill. She sought a remedy from Stevenson who was the ginger beer manufacturer.

In a landmark decision, the House of Lords found that the manufacturer owed Donoghue a duty of care and that the duty had been breached, as it was reasonably foreseeable that a failure to ensure the product safety of the ginger beer could harm people who consumed it. The judges also found that there was a sufficiently proximate relationship between a manufacturer and the consumer of its goods to found a case in tort. Donoghue was awarded damages.

The obligation to exercise due care, if it is foreseeable that someone might be harmed if such due care is not taken, is a central tenant of the tort of negligence. It remains critical in modern discussion concerning the responsibility of local government to protect property owners and residents in the face of cascading climate hazards.

Since *Donoghue v Stevenson*, the common law action of negligence has continued to evolve in Aotearoa and it has been extended to local councils. In some part, this is because common law (being judge-made rather than created by statute) by its very nature, is constantly evolving. But it also reflects the ability of common law to adapt to reflect changes in public sentiment and public policy. As stated by Lord Berwick in the *Hamlin* case (see spotlight below) “The decision whether to hold a local authority liable for the negligence of a building inspector is bound to be based at least in part on policy considerations”.¹⁰ This is because a decision to hold councils so liable could ‘open the barn door’ to claims which would effectively render the ratepayer an insurer and indemnifier against loss.¹¹

A spotlight on council duty of care

There is a long line of cases which have held councils liable for damages caused by failure to take a duty of care in authorising and inspecting buildings, which we discuss below. The *Brown* case is particularly pertinent to climate risk as it involved a property at risk of flooding.

Brown v Heathcote County Council

The Browns sought to build a house on a property which had been owned by Mrs Brown's family and used as an orchard. The property was situated on the banks of the Heathcote River, and had previously flooded on several occasions when the river breached its banks. In 1973, Mr Brown applied for a building permit to construct a house on a part of the property that he thought (after consulting Mrs Brown) was above flood level. The council referred the application to the Drainage Board which in turn sent an inspector to the site. The inspector reported that the site was satisfactory. The Drainage Board subsequently approved the building permit without any comment on flood danger. This was despite previous floods having exceeded the proposed ground floor level of the house.

Mr and Mrs Brown moved into their new house in 1974. The house flooded in 1975, 1976 and 1977. In response, the Browns raised the level of their ground floor by 1.8 metres. They then sought to recover the cost of doing so from the Council and the Drainage Board. The Browns alleged negligence on the basis that the agencies had failed to warn them about the danger of flooding and had also failed to require the house to be built above known flood levels. Both the Court of Appeal and Privy Council found in the Browns' favour holding the Drainage Board liable for the costs.

Liability was found despite the Drainage Board having no statutory obligation to check the flood levels of properties when consent was sought. It had also not received any specific request from the Council to do so in respect of the Browns' building consent application. The duty of care was based on evidence that the Drainage Board had established a practice of checking flood danger when considering building consent applications and the Council (and the Browns) were entitled to rely on this.

The Privy Council noted that the Browns were the authors of their own misfortune, to some extent, because they had relied on Mrs Brown's

memory of flood levels rather than seeking advice from the Drainage Board which held actual flood records. The Browns should therefore have been liable for contributory negligence. However, this was not initially pleaded by the other parties so was not granted by the court. This is of some interest as contributory negligence may be an issue where property owners knowingly build in high hazard zones.

Invercargill City Council v Hamlin

Hamlin had a house built in 1972. Soon after he moved in, the doors started jamming and cracks appeared in the walls. In 1979, a door stuck so badly that Hamlin commissioned an engineer to assess the building. The engineer concluded that the foundations needed to be replaced as they had not been built to an acceptable standard. In 1980, Hamlin commenced proceedings against the Invercargill City Council and the house builders for the cost of repairing the foundations. The builders were no longer in business, so the case relied on establishing a claim of negligence against the Council. Hamlin alleged that the building inspector had been negligent in carrying out his inspection.¹² The case went all the way to the Privy Council.

In finding in Hamlin's favour, Lord Berwick explained that "In a succession of cases in New Zealand over the last 20 years it has been decided that community standards and expectations demand the imposition of a duty of care on local authorities and builders alike to ensure compliance with local bylaws."¹³ This picked up on Justice Richardson's observations in the Court of Appeal that New Zealand's home owning social circumstances and habits, and reliance on regulatory protections, justified a departure from the way the law had developed in England where council liability had been excluded.¹⁴ Recognition by the courts in Aotearoa, that there is a public expectation that territorial authorities be held liable concerning foreseeable risk to property owners, has significant implications for liability for damage due to climate hazards.

Spencer on Byron

The *Spencer on Byron* case¹⁵ was part of a long line of leaky building disputes which sought to hold councils liable for approving building consents for buildings that subsequently failed. This case was notable because it considered council liability for losses associated with commercial (rather than residential) buildings.

The developer applied to North Shore City Council for building consent for a 23-floor building known as Spencer on Byron. The

building was to be primarily a hotel, with 249 units individually owned as unit titles, but being leased back to the hotel manager for at least 10 years. The six penthouse apartments were excluded from the leaseback arrangements. The Council issued the required building permits before construction and codes of compliance once the building was erected. The building subsequently leaked with remedial costs exceeding \$19 million. The building owners sought to hold the Council liable for the costs. The case turned on whether the Council owed a duty of care to the owners of a primarily commercial building.

The Court of Appeal initially dismissed the claim on the basis that the duty of care in respect of inspection and certification for building code compliance only applied in the case of residential properties. The Supreme Court overturned this position finding that the duty of care could exist irrespective of the type of building. This was because there was sufficient proximity between councils and building owners to ground a duty of care regardless of the nature of the premises.

The case opened up potential council liability for losses on multi-million dollar commercial buildings and this could potentially extend to buildings affected by climate risk where the council is found to have acted negligently.

In 2011, following a series of leaky building cases, the government amended the Building Act 2004 to place a ten year limitation on the bringing of civil proceedings relating to building work after the act or omission occurred (ie the date the code of compliance was issued). This served to limit the quantum of liability to some extent, and indicates the potential to relieve councils of liability through statutory intervention such as through the proposed Climate Adaptation Act.¹⁶

It is not yet clear the extent to which an action in negligence could succeed on the basis that a council authorised development in a high risk zone, without undertaking due diligence, as such a case has yet to be brought. However, it seems probable that a duty of care would be found in some cases. A key question is whether such liability issues should be left to be determined by the Courts, which will almost certainly continue to develop this branch of the law, or whether they are better addressed by Parliamentarians in statute, such as the proposed Climate Adaptation Act. Specific liabilities of relevant parties could be codified in legislation, or the statute could state that parties are not liable in relation to certain aspects of climate change cascading hazards.



Slip-damaged houses at Piha

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3 Land law



Onuku Marae

In this section we explore the different categories of land which may be affected by managed relocation policies including Māori land and general freehold land. We also examine the current law regarding the ‘taking’ of land which will be relevant if government seeks to change the zoning of land or acquire it, either for the purpose of moving people out of high hazard areas, or to create new settlement areas in safer locations.

3.1 Māori land

Prior to colonisation, land in Aotearoa was communally held and managed based on tikanga. Land was either claimed by right of discovery (whenua taunaha), confiscation (whenua raupatu) or gift (whenua tuku). Land rights were confirmed by occupation and use, referred to as ‘maintaining the home fires’ (take ahi kā).

A small amount of land is still held on such a communal basis (around 38 blocks of land comprising some 1,204 hectares)¹ and is called “Māori customary land”. Under section 145 of the Te Ture Whenua Māori Act 1993, such land cannot be alienated. It is land that has remained in the possession of its original holders since before the signing of te Tiriti o Waitangi/Treaty of Waitangi (te Tiriti) in 1840.

As explained by the Court of Appeal in the *Ngāti Apa* case:

When the common law of England came to New Zealand its arrival did not extinguish Māori customary title. Rather, such title was

integrated into what then became the common law of New Zealand. Upon acquisition of sovereignty the Crown did not therefore acquire wholly unfettered title to all the land in New Zealand. Land held under Māori customary title became known in due course as Māori customary land.²

After the signing of te Tiriti, the Crown acquired large areas of Māori land both through purchase and later confiscation under the New Zealand Settlements Act 1863 (particularly in Taranaki, Waikato, South Auckland and Hawkes Bay). This amounted to around two-thirds of the entire land area of Aotearoa after just two decades. Further land was lost to Māori after the individualisation of land title under the Native Lands Act 1862. This also led to the fragmentation of ownership interests and blocks of land.³ As highlighted by the Waitangi Tribunal in its Muriwhenua report, such broad scale land dispossession was undertaken with little thought for the wellbeing of Māori:

In all, the Muriwhenua claims are about the acquisition of land under a show of judicial and administrative process. They concern Government programmes instituted to relieve Māori of virtually the whole of their land, with little thought being given to their future wellbeing or to their economic development in a new economy. There is little difference between that and land confiscation in terms of outcome, for in each case the long-term economic results, the disintegration of communities, the loss of status and political autonomy, and despair over the fact of dispossession are much the same.⁴

Currently only about 5 per cent of the country (some 1.47 million hectares) is “Māori land” and this is mainly held as “Māori freehold land”.⁵ Such land has never been out of Māori ownership, but customary interests have been converted into freehold land title by the Māori Land Court or its predecessors. This land is predominately located in the Bay of Plenty, East Coast and Manawatu/Wanganui/Taranaki.⁶ Other categories of Māori land include “General land owned by Māori” which is privately owned freehold land (see below) beneficially owned by Māori, and “Crown land reserved for Māori”. Administration of Māori land is overseen by the Māori Land Court under the Te Ture Whenua Māori Act with the objective of retaining Māori land in Māori ownership, facilitating its occupation, use and development, and protecting wāhi tapu.⁷

Any proposals for managed relocation need to be sensitive to this history of Māori land dispossession. It has left some Māori communities with trauma and a fear of moving off their whenua and losing mana whenua (customary authority) status. For some, the depth of connection to the whenua on which their homes or marae sit, and fear of losing mana whenua status, far outweighs the imminent risk posed by climate change. Any managed retreat policy will need to recognise the importance, as highlighted in the Te Ture Whenua Māori Act, of retaining Māori land in Māori ownership. Another implication of land dispossession is that many Māori kin communities threatened by climate change hazards, and seeking to relocate, may have nowhere to go within their rohe (area of tribal authority). This raises the issue of whether land may need to be acquired by the Crown to assist such communities.

3.2 General land

General land title in Aotearoa stems from concepts deeply embedded in English common law. These are in turn derived from Anglo-Norman feudal doctrines where land was granted by the Crown in return for feudal services. Under English common law, land is ultimately held by the sovereign with the underlying or ultimate title of the Crown referred to as the ‘radical title’.⁸ Landowners can only hold land as tenants under grant from the Crown.⁹

This approach was reflected early on in the Native Land Act 1909, with a memorandum to the Native Land Bill explaining that “Customary land, since it has never been Crown-granted, belongs to the Crown...”.¹⁰ However, as described above, this approach has more recently been debunked, with customary title now recognised as being unaffected by English common law.

Today, non-customary property rights are still subject to the Crown’s underlying title. The rights granted by the Crown relating to the use of land and associated chattels are called “estates”.¹¹ There are four main types of estate in Aotearoa: freehold, leasehold, unit title and cross lease. The basic rights of freehold estate in fee simple are possession, use and enjoyment, and alienation.¹² In contrast, leasehold is a contractual tenancy of land for a period of time.¹³ Land held by the government is known as Crown land and does not usually have a land title issued (on the basis that the Crown holds the radical title so does not need to issue a fee simple title to itself).¹⁴ Much Crown land is managed by the Department of Conservation (DOC) as part of the conservation estate.

The importance placed on the ownership of land in Aotearoa is highlighted by the concept of indefeasibility of title, where the registered owner of land (as shown on the property title) is protected against all claims that are not so registered, as well as a state guarantee as to the accuracy of the registered rights.¹⁵ No other form of property right is backed up with such state protections. However, this does not mean that the state cannot ‘take’ land from property owners.

3.3 ‘Taking’ of land

Compulsory acquisition of land by government is likely one of the most controversial issues in managed relocation. That the state may acquire land through compulsion, for a public purpose, is an old concept in law with many variations dating back as far as Ancient Rome.¹⁶ The current and conventional economic rationale rests on the argument that in a voluntary system, without state capacity to compel acquisition, the owner of land required for a public purpose could hold the state to ransom by demanding an extortionate price.¹⁷ An oft-cited example is the expansion of railroads in 19th century Britain, where owners of the land needed for rail construction leveraged their position to charge exorbitant amounts of money for the land, thereby taking the taxpayer for a ride.¹⁸ In response, the state resorted to compulsory acquisition, taking the land at market price based on a “free and fair” trade.

The premise of a ‘taking’ in law is that government action based on the public interest can legitimately interfere with the right of individuals to enjoy and use their own property.¹⁹ It can take the form of acquisition or a lesser action which still has a physical or economic effect on the owner of the land. This gives rise to the issue as to whether the owner must be compensated for such a ‘taking’.

In the *Estate Homes Limited* case, the Supreme Court determined that there is no general right in Aotearoa to compensation where land has been taken, stating that:²⁰

New Zealand law provides no general statutory protection for property rights equivalent to that given by the eminent domain doctrine under the Fifth Amendment to the United States Constitution, under which taking of property without compensation is unconstitutional and prohibited. *The New Zealand Bill of Rights Act 1990 does not protect interests in property from expropriation.* The principal general measure of constitutional protection is under the Magna Carta which requires that no one “shall be dispossessed of his freehold ... but by ... the law of the land”. *One of the effects of this measure is to require that the*

power to expropriate is conferred by statute, and the statutory practice is to confer entitlements to fair compensation where the legislature considers land is being taken for public purposes under a statutory power. Furthermore, as Professor Taggart has pointed out, the courts have been astute to construe statutes expropriating private property to ensure fair compensation is paid. (emphasis added)

This makes it clear that property could be compulsorily acquired for managed retreat purposes, without compensation, so long as the acquisition was authorised under statute. However, where the statute leaves room for any doubt, the courts will infer an obligation to pay fair compensation. Whether it would be advisable or politically achievable to legislate to acquire land without compensation is another, separate issue.



Flooded contractor's yard, Hawkes Bay (Waka Kotahi)

The *Estate Homes Limited* case involved the construction of an arterial road as part of a subdivision. The developer sought compensation from the council for constructing a portion of a road that was additional to what was required to meet the needs of the subdivision. When determining whether requiring the road to be built (and the privately owned land on which it was located to be vested in the council), as part of the subdivision consent, amounted to a ‘taking’ of land, the Supreme Court noted that:

[47] In general, *where permission to develop land is refused, with the consequence that it is greatly reduced in value, the courts have ... treated what has happened as a form of regulation rather than a taking of property.* This explains why New Zealand planning legislation restricts,

without compensation, the right to develop land and requires approval of all subdivisions.

[48] *If a lawful condition to a subdivision consent requires the giving up of land in exchange for the right to subdivide, no expropriation or taking will be involved....*” (emphasis added)

This principle is reiterated in section 85(1) of the Resource Management Act 1991 (RMA) which states that “An interest in land shall be deemed not to be taken or injuriously affected by reason of any provision in a plan unless otherwise provided for in this Act”. This is important when it comes to zoning hazardous land to prevent future development, and where other provisions of the Act come into play. We discuss this in more detail in section 6.

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4 Other rights



Okahu Bay

This section explores two other categories of rights which must be considered when designing managed relocation law, rights under te Tiriti and human rights.

4.1 Te Tiriti rights of partnership and active protection

Te Tiriti is a foundational constitutional document in Aotearoa's legal system which establishes and guides the ongoing relationship between the Crown and Māori.¹ While te Tiriti is not directly enforceable in domestic law, it has "great political and moral force" and is applicable to the exercise of most public powers. Additionally, the courts generally prefer an interpretation of statutes that is consistent with te Tiriti principles.²

In seeking to apply te Tiriti to modern usage, the courts have sought to capture the underlying spirit and intention of the two different versions (English and Māori), in a set of principles, which focus on the underlying mutual obligations and responsibilities of the Treaty partners. We discussed these principles in Working Paper 1 but here focus specifically on the principles of partnership and active protection. These principles are highly relevant in a context of cascading climate hazards threatening both people and geographic locations that are culturally or historically significant:

Many Māori communities are in locations that are particularly vulnerable to the effects of climate change on their homes, infrastructure and sites of cultural significance including marae, urupā (burial grounds), wāhi tapu (sacred sites) and mahinga kai (food gathering sites).³

4.1.1 Protecting tino rangatiratanga

As the Waitangi Tribunal has stated, "at the heart of the Treaty relationship is partnership between kāwanatanga and tino rangatiratanga".⁴ The Tribunal has further clarified that "rangatiratanga denotes the mana not only to possess what one owns but, and we emphasise this, to manage and control it in accordance with the preferences of the owner".⁵ As explained in Sir Hirini Moko Mead's book 'Tikanga Māori':⁶

The concept of rangatiratanga has been discussed extensively in relation to the Treaty of Waitangi... The word appears in article 2 of the Māori text. In these discussions rangatiratanga is associated with political issues such as sovereignty, chieftainship, leadership, self-determination, self-management and the like.

Protecting rangatiratanga in a climate change context would see iwi, hapū and whanau leading, and being supported to undertake, the development and implementation of adaptation strategies for their own land, taonga and communities.

A spotlight on the impacts of infrastructure on hazard risk at Ōkahu Bay

A bustling Ngāti Whātua ki Ōrakei papakāinga once sat on the land behind Ōkahu Bay in Tāmaki Makaurau, supplied by its surrounding farms and provisioned by the productive harbour on its waterfront. Then, in around 1908, government started constructing the Ōrakei sewerage works. A large concrete sewer pipe, 2.6 metres high and 1.7 metres wide, ran around the edge of the entire bay, cutting off the papakāinga from the foreshore, and leading to an outfall on the north-eastern headland. As a result of the pipe and accompanying retaining wall, the view of the sea from the papakāinga was lost, as was access to the sea for people and vessels. In addition, the concrete structure obstructed drainage of the land and so when it rained the papakāinga flooded and turned into a swampy marsh.⁷

After the works became operational, raw sewerage started discharging into the marine area adjacent to the bay, contaminating the shellfish beds.⁸ The flooding of the papakāinga became worse, in 1921, when a road was built along the beachfront over the sewer pipeline. By 1924, most people had left the settlement and the government was keenly acquiring land parcels there. More adequate drainage was only installed 30 years later when the land had been acquired by government and turned into a public domain.⁹ However, the urupā is still impacted by frequent flooding. This history of damage to the whenua raises the issue of what role government should play in supporting hapū to mitigate such natural hazard risks which will be exacerbated by the impacts of climate change.

4.1.2 Supporting managed relocation of marae

Marae are central to Māori culture and wellbeing. They are a key cultural infrastructural node providing a centre for hapū and iwi to connect to place. While a marae complex houses physical buildings such as the wharenui and wharekai, the significance of the site is not limited to the boundary fence. Pepeha can provide insight into the area that iwi and hapū identify with by expressing key visible landmarks and geographical locations that encompass their territory as expressed in 'Mai i Ngā Kurī a Whārei ki Tihirau' and 'Mai i Maketū ki Tongariro'. This worldview is much broader than Western paradigms of boundaries.

Many marae are located in coastal/floodplain areas and are susceptible to coastal erosion and/or flooding. Where marae are surrounded by privately owned land this can create difficulties for Māori communities needing

to relocate (see spotlight on Tangoio Marae below). It raises the issue of whether the government's duty of active protection under te Tiriti includes assisting Māori to access land required for managed relocation.

A spotlight on managed retreat of Tangoio Marae

The Tangoio Marae in Hawke's Bay houses a wharenui, wharekai and ablution block, with an urupā located across the road. The marae has been prone to flooding for many years including being impacted by Cyclone Bola in 1988. In response to the evident natural hazard risk, a committee of whānau commissioned a geo-technical report to explore relocation or hazard reduction options for the marae. Although three sites were identified as potential options for relocation, private owners were unwilling to sell them. So the committee explored prevention opportunities with whānau and hapū, and a decision was made to rebuild the existing stop bank by increasing its height, width and length.¹⁰

Devastatingly, the marae was severely damaged in Cyclone Gabrielle, with the buildings being flooded and the floors left coated in metres of mud.¹¹ All the marae buildings were red stickered, apart from the wharenui which was yellow stickered, and are being demolished.¹² The profound affect this has had on the Tangoio hāpori (community) is felt in a comment by Pereri King, "That's my life, that's who I am. That's my symbol of strength, and it's smashed."¹³

4.1.3 Retaining connections

Whakapapa is the connection Māori people have with each other, and to the land, which may be impacted if Māori are required to move. Relocation has a wide reach into Māori culture. For some hapū, their whenua reaches down to rivers or the coastline where they have access to kai gathering areas. The implications of relocating these hapū are multifaceted. Displacement of communities can mean that access to significant landmarks or mātauranga associated with them is impacted. There may be negative impacts on the ability of hapū to feed their communities and whānau, as well as to provide for large numbers of people at tangi. Kōrero and wānanga about connection to the whenua and whakapapa, and how that will be maintained during any managed retreat process, will be essential in facilitating understanding, buy-in and participation.

4.1.4 Adequately resourcing iwi and hapū

Appropriately resourcing iwi and hapū to engage with local and central government speaks to the partnership intended by te Tiriti. Engagement could happen at a iwi or hapū level, where the kōrero can then be filtered down to the hapū and whanau respectively. Some iwi and hapū, that are more established in their post-settlement phase, may have access to resources (such as a specialised environmental manager) and have climate adaptation management plans and strategies in place. Groups that lack such resources might need to be supported by the Crown.

A spotlight on the Ngāi Tahu climate change strategy

He Rautaki Mō te Huringa o te Āhuarangi, Ngāi Tahu's climate change strategy, provides direction across the whole spectrum of Ngāi Tahu interests, assets and activities. It includes embedding Ngāi Tahu within key climate change response structures and programmes working with central and local government so that:¹⁴

- Te Rūnanga is represented on the Government's Climate Commission and other key statutory bodies informing and managing climate change response.
- Papatipu Rūnanga actively influence regional and local government processes to develop climate change responses.
- Climate change impacts on Settlement assets and tribal lands and resources are reviewed, and mechanisms established that enable at risk assets, lands and resources to be transferred, replaced or compensated.

4.2 Human rights

Managed retreat policy must consider potential impacts on human rights. There is a growing body of literature on human rights, ethical considerations and access to justice in the context of climate change and adaptation.¹⁵ That said, the literature on how international human rights directly interact with the topic of loss and damage is still developing.¹⁶

The fundamental civil and political rights of those in Aotearoa are provided for in the New Zealand Bill of Rights Act 1990.¹⁷ Many of the rights enumerated in the Act are re-iterations of those in the International Covenant on Civil and Political Rights (ICCPR) which outlines basic civil freedoms afforded to persons. The preamble to the covenant places

the recognition of human dignity at the root of political liberties.¹⁸ Article 12 outlines a general freedom to choose residence.¹⁹ The International Covenant on Economic Social and Cultural Rights outlines the general human right to "the highest attainable standard of physical and mental health".²⁰

At the broadest public safety level, the right not to be "deprived of life" is codified in section 8 of the New Zealand Bill of Rights Act.²¹ While government action on climate change adaptation is unlikely to deprive people of life in a way that clashes with this obligation, section 8 grounds a general duty on authorities to preserve life, or at least to refrain from activities that would endanger people. The right not to be subjected to degrading or disproportionately severe treatment is found in section 9.²² A further relevant right is the section 27 right to natural justice and a right to judicial review and civil proceedings.²³

A spotlight on human rights in the wake of the Christchurch earthquakes

In 2013, the Human Rights Commission released the findings of its investigation into human rights in the Canterbury earthquake recovery. The Commission undertook the investigation because, although much had been done to ensure the rights of people, "the earthquakes resulted in challenges to the realisation of a range of economic and social rights, such as the right to housing, to an adequate standard of living, health, education and to property." Civil and political rights such as rights to participation or access to information were also affected.²⁴ The Commission also reported on the potential implications posed by withdrawal of services, and praised the postal service for its flexibility in the novel circumstances.²⁵

The Commission subsequently became an intervenor in the Supreme Court hearing of the *Quake Outcasts* case,²⁶ which involved a group of property owners in the Christchurch red zone, who were offered a lower amount for the buyout of their properties on the basis that they were uninsured. The Commission contended that the differential treatment given to the 'Quake Outcasts' might not be congruent with Government's broader international human rights obligations. In the case, the Quake Outcasts had claimed that:

...the unequal treatment of the uninsured (and the delays in making decisions about their position) is unlawful, an abuse of power and inconsistent with the earthquake recovery purposes of the Canterbury Earthquake Recovery Act. Even if the lack of

insurance is a relevant point of differentiation for some of the Quake Outcasts groups, the dramatic nature and effect of the different treatment is oppressive, disproportionate and unreasonable, especially as there has been no consideration of the individual circumstances of the affected persons.²⁷

A major question considered by the Court was whether the diminished offer for the uninsured was justified on policy grounds in light of the overarching recovery objective for the area.²⁸ In particular, it was argued that the approach towards the Quake Outcasts was tantamount to abandonment, and the Court agreed, stating:²⁹

The Crown argues that owners in the red zone are free to decide not to sell and that they may remain in the red zone if they wish

to do so. However, the reality is that the red zone is no longer suitable for residential occupation. We accept the Human Rights Commission's argument that the red zone decisions meant that residents in the red zone were faced with either leaving their homes or remaining in what were to be effectively abandoned communities, with degenerating services and infrastructure. In light of that stark choice, Pankhurst J, in his judgement, termed this a "Hobson's choice". We agree.

Overall, there is a wide range of property, cultural and human rights in Aotearoa that will need to be considered when developing a new Climate Adaptation Act. We now turn to the current statutory framework and how it provides for the various stages of managed relocation.

Endnotes

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- 17 New Zealand Bill of Rights Act 1990, part 2
- 18 International Covenant on Civil and Political Rights, UNGA 2200A, adopted December 1966, entry into force 23 March 1976, Preamble
- 19 International Covenant on Civil and Political Rights, UNGA 2200A, adopted December 1966, entry into force 23 March 1976, article 12
- 20 International Covenant on Economic Social and Cultural Rights, UNGA 2200A (XXI), adopted 16 December 1966, entry into force 3 January 1976, article 12
- 21 New Zealand Bill of Rights Act 1990, section 8
- 22 New Zealand Bill of Rights Act 1990, section 9
- 23 New Zealand Bill of Rights Act 1990, section 27
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- 25 Human Rights Commission, 2013, *Monitoring human rights in the Canterbury earthquake recovery*, Human Rights Commission, Wellington, at 34 and see also 140; and see also *Quake Outcasts v Minister for Canterbury Earthquake Recovery* [2015] NZSC 27, [2016] 1 NZLR 1, at [99]
- 26 *Quake Outcasts v Minister for Canterbury Earthquake Recovery* [2015] NZSC 27, [2016] 1 NZLR 1
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5 Identifying and communicating climate risk



Clarks Beach seawall

Currently there is no for-purpose system in legislation to effect managed relocation. Instead, there is a complicated bundle of statutory provisions that government agencies and local authorities must navigate *ad hoc* in order to relocate people away from areas exposed to natural hazards. For the purposes of our legislative review we have identified seven key tasks involved in undertaking managed retreat as follows:¹

- 1 Identifying risk and communicating it to the public
- 2 Preventing development in hazard prone areas
- 3 Undertaking adaptation planning
- 4 Rezoning land to prevent occupation
- 5 Acquiring properties and providing compensation
- 6 Relocating people, buildings and infrastructure, and developing new settlements
- 7 Clearing vacated land and undertaking ongoing land management

The relevant legislation ranges from provisions concerning climate risk assessments, to zoning land, to sanitation standards for houses, and to powers to move people during national emergencies. There are many

relevant statutes. We do not claim to provide an exhaustive list of them (and we have not reviewed, for example, the Land Transport Act 1988, the Railways Act 2005 or the Marine and Coastal Area (Takutai Moana) Act 2011) but rather we have made an initial effort to provide an integrated sense of a body relevant law.

A summary of the relevant legislation we have reviewed is contained in Figure 1.



Flooding at Piha campground

Legislation (in date order)	Agency	Relevance to managed retreat
Soil Conservation and Rivers Control Act 1941	Regional councils	Construction and maintenance of flood protection works
Land Act 1948	Land Information New Zealand	Acquisition, disposal and management of Crown owned land
Health Act 1956	Territorial authorities Director of Health	Requires properties to have adequate potable water and facilities for the disposal of wastewater Enables buildings to be closed where they are likely to cause injury to health or are unfit for human habitation
Local Government Act 1974	Territorial authorities	Management and stopping of roads
Reserves Act 1977	Territorial authorities Other management entities	Classification and management of reserve land by a range of parties
Public Works Act 1981	Land Information New Zealand Local authorities	Compulsory acquisition of land for public works and payment of compensation
Local Government Official Information and Meetings Act 1987	Territorial authorities	Preparation of Land Information Memoranda for individual properties which can include information on climate risk
Conservation Act 1987	Department of Conservation	Designation and management of conservation land
Resource Management Act 1991	Regional councils Territorial authorities	Management of land, water, air and coastal marine area; planning and consenting for activities including subdivision and urban development
Te Ture Whenua Māori Act 1993	Māori Land Court	Classification, protection and management of Māori land
Climate Change Response Act 2002	Climate Change Commission	Preparation of a national risk assessment and national adaptation plan every six years
Local Government Act 2002	Regional councils Territorial authorities	Sets out consultation principles and decision-making requirements. Provides for 10-year long term plans, 30-year infrastructure strategies and financial strategies
Civil Defence Emergency Management Act 2002	Director of Civil Defence Emergency Management Local Authorities	Provides broad powers to respond to emergencies
Building Act 2004	Territorial authorities	Ensures compliance of buildings with the building code
Urban Development Act 2020	Kāinga Ora	Separate regime for specified development projects including compulsory acquisition of land
Water Services Entities Act 2022	Water Services Entities	Must identify and manage natural hazard risks affecting water assets

Figure 1: List of current legislation relevant to managed retreat

Below we describe and analyse how key legislation enables the various elements of managed relocation to be undertaken. This is to help identify the extent to which Aotearoa has adequate legal and policy tools to undertake managed retreat. We also describe the likely impact of current proposed reforms. In doing so, we aim to both provide a broad big picture of the overarching system and identify potential gaps.²

“Information on climate risks that is of high quality and is trusted, decision-relevant, and widely disseminated is foundational for adaptation planning and is urgently needed.”³

Identifying and communicating risk effectively is essential to any meaningful adaptation planning and managed relocation process. Such a process will need to be informed by a robust scientific assessment of risk to communities and property. This risk must then be effectively communicated to those affected, including property owners and the broader community, if they are to be enabled to respond to the risk. The information needs to be reliable and trusted and reflect the most up to date science.

A spotlight on mātauranga Māori and climate adaptation

Mātauranga Māori is an indigenous knowledge system and way in which the Māori world is understood. Rangi Mātāmua believes mātauranga Māori and Western science can work symbiotically, especially when it comes to responding to our changing climate, as “our knowledge systems are not separated from our cultural practices, from our actual everyday practices, and even from our spirituality”.⁴ Understanding environmental change informed the way in which life was lived by Māori.

The design of climate adaptation legislation will need to carefully consider mātauranga Māori, tikanga, te reo Māori and te ao Māori concepts and aspirations in a way that is led and explored by Māori. A pressing issue is the ongoing stewardship of this knowledge. Māori data sovereignty is becoming increasingly important, at a time when iwi and hapū are being asked for their knowledge and stories, which are then being deployed to help combat the effects produced by a different knowledge system. Rangatiratanga by Māori over Māori data is an important matter to be addressed.

5.1 National climate risk assessment

The current approach to identifying and communicating risk is multi-layered. At the national level, the Climate Change Response Act provides for the preparation of a ‘national climate risk assessment’. This assessment must both “assess the risks to New Zealand’s economy, society, environment, and ecology from the current and future effects of climate change” and “identify the most significant risks to New Zealand, based on the nature of the risks, their severity, and the need for co-ordinated steps to respond to those risks in the next 6-year period”.⁵

The Climate Change Commission is tasked with preparing the risk assessment every six years. The Commission is an independent Crown entity, established in 2019, which provides expert advice to Government. It also monitors and reviews Government’s progress towards meeting its adaptation and emissions reduction goals.⁶ The Commission must provide the risk assessment to the Minister, and make it publicly available, along with any evidence commissioned to support its preparation.⁷ In this way the document serves as a tool to both assess risk and communicate it to the public.

The first national climate risk assessment was released in August 2020. It was prepared by consultants to the Minister for the Environment (rather than the Climate Commission) due to work commencing prior to the Commission being established. Future risk assessments will be prepared by the Commission itself. The first assessment identified 43 priority risks across five value domains (natural environment, human, economy, built environment and governance). It then highlighted 10 risks considered to be the most significant (see Figure 2).⁸

In terms of Māori, the risk assessment highlights some specific risks (but only in general terms) with were rated as having extreme consequences, including:⁹

- Risks to Māori social, cultural, spiritual and economic wellbeing from loss and degradation of lands and waters, as well as cultural assets such as marae, due to ongoing sea-level rise, changes in rainfall and drought.
- Risks to Māori social, cultural, spiritual and economic wellbeing from loss of species and biodiversity, due to greater climate variability and ongoing sea-level rise.

Domain	Risk	Rating	
		Consequence	Urgency (44-94)
Natural Environment	Risks to coastal ecosystems, including the intertidal zone, estuaries, dunes, coastal lakes and wetlands, due to ongoing sea-level rise and extreme weather events.	Major	78
	Risks to indigenous ecosystems and species from the enhanced spread, survival and establishment of invasive species due to climate change.	Major	73
Human	Risks to social cohesion and community well being from displacement of individuals, families and communities due to climate change impacts.	Extreme	88
	Risks of exacerbating existing inequities and creating new and additional inequities due to differential distribution of climate change impacts.	Extreme	85
Economy	Risks to governments from economic costs associated with lost productivity, disaster relief expenditure and unfunded contingent liabilities due to extreme events and ongoing, gradual changes.	Extreme	90
	Risks to the financial system from instability due to extreme weather events and ongoing, gradual changes.	Major	83
Built Environment	Risk to potable water supplies (availability and quality) due to changes in rainfall, temperature, drought, extreme weather events and ongoing sea-level rise.	Extreme	93
	Risks to buildings due to extreme weather events, drought, increased fire weather and ongoing sea-level rise.	Extreme	90
Governance	Risk of maladaptation across all domains due to practices, processes and tools that do not account for uncertainty and change over long timeframes.	Extreme	83
	Risk that climate change impacts across all domains will be exacerbated because current institutional arrangements are not fit for adaptation. Institutional arrangements include legislative and decision-making frameworks, coordination within and across levels of government, and funding mechanisms.	Extreme	80

Figure 2: Ten most significant climate risks in Aotearoa based on urgency (source: Ministry for the Environment, 2020)

Figure 2 shows how the risks have been identified at a high (national level) and not in a way that applies directly to individuals or communities. The national assessments are therefore more significant in indicating the *kinds* of matters that need to be considered in any managed retreat policy, and providing a national context for it, rather than informing how such policy might be implemented in any particular case. Interestingly, the Urban Development Act 2020 includes direct reference to such publicly available

documents prepared under the Climate Change Response Act, requiring Kāinga Ora to “identify” such reports where relevant to the proposed project area when assessing a potential urban development project.¹⁰ However, it seems unlikely that the reports will be relevant to identifying constraints and opportunities associated with a particular development site, in more than a general sense.

There is no similar requirement at the regional and/or local level for the assessment of climate risk, or making the results of such assessment publicly available. Any responsibility to do so must be implied from other provisions. That said, many regional and district climate change risk assessments have been undertaken or are underway, as are other assessments for different central government portfolios (such as health, education and conservation). The challenge will be to 'join up' all this work in a coordinated manner, at place.

5.2 Land Information Memorandum

A spotlight on flood disclosure laws in Texas, USA

Under Texas law, which took effect from 1 January 2022, landlords are required to provide written notice to prospective tenants if a rental property has been flooded within the previous five years and/or if it is in a 100-year floodplain. This is in response to Hurricane Harvey which caused \$140 billion of property damage to Houston in 2017.¹¹

The Local Government Official Information and Meetings Act 1987 (LGOIMA) determines what shall be included in Land Information Memorandum (LIM) reports. LIMs relate to individual property titles, are mainly requested by potential purchasers of land, and are prepared by territorial authorities on the request of any party. Section 44A(2) of the Act requires that the LIM shall include a range of information including identifying "potential erosion, avulsion [sudden loss of land from the flow of a river/stream], falling debris, subsidence, slippage, alluvion [sediment deposit], or inundation".¹²

However, this information only needs to be included if it "is known to the territorial authority" thereby not placing any explicit responsibility on councils to undertake the work to identify the risk in the first place. In addition, the information only needs to be included in the LIM if it is "not apparent" from the district plan.¹³ This assumes that members of the public are generally familiar and literate with district plans (which can be very long and complex documents even for subject matter experts) and are able to find within them specific risk information affecting their property of interest.

A spotlight on the inclusion of hazard information in LIMs

The issue of what hazard information should be included in a LIM has been considered by the High Court in the context of the Kapiti Coast. The area is subject to high rates of erosion, exacerbated by the land sinking by around 3.5-5mm a year, and climate change.¹⁴ In 2005, to assist with managing this significant risk, the Kapiti Coast District Council commissioned a coastal hazard erosion assessment. In response to the study's conclusions, the Council decided to place lines on its cadastral maps which predicted the possible extent of coastal erosion in 50 and 100 years' time. The lines, which affected some 1,800 coastal properties, reflected what could happen under a worst case scenario.¹⁵

The Council also considered itself obliged to include this information on any LIMs it issued. This was because section 44A of LGOIMA required it to include information identifying each potential feature or characteristic of the land, including potential erosion, where that information was known to the council.

The inclusion of coastal hazard information in the LIMs was challenged by property owners, who were concerned about the impact on their property values. They argued that the lines produced by the coastal scientist were no more than speculative, as they did not identify the probability of the hazard occurring, and did not take into account property specific factors such as land contour or accretion history. The High Court did not accept this argument and confirmed that "a worst case scenario objectively identified and evidentially based, must, by definition, be a reasonable possibility – albeit the worst one". It also confirmed that a site-by-site analysis did not need to be undertaken stating:

The analysis ... is unquestionably about erosion as a special feature or characteristic of all coastal land along the Kapiti Coast, and therefore of every individual property fitting the description. Here, the Council is trying to warn the market about the potential local effects of a global phenomenon. It would be inconsistent with the purpose of S 44A if that could not be done because a far more expensive site-by-site analysis is required but unaffordable."¹⁶

However, the Court did emphasise that the information contained in the LIM needed to be "accurate, state the position fairly, and it must not mislead".¹⁷ The decision confirmed the LIM as an important document in informing the market (in the form of prospective property buyers) about the potential natural hazard risks associated with a particular property.

A LGOIMA Amendment Bill, currently before the House, seeks to strengthen these provisions. First it is more explicit about how hazard information is to be set out in LIMs which must include information about each hazard or impact that affects the land, each *potential* hazard or impact “to the extent that the authority is satisfied that there is a reasonable possibility that the hazard or impact may affect the land concerned (whether now or in the future)”, and the cumulative or combined effects of those hazards or impacts. The hazard information is to relate to both natural hazards and the impacts of climate change that exacerbate them.¹⁸

This information will be required irrespective of whether it is also contained in the district plan, which is a positive change, and means that all the relevant information on a property will be provided in one document. That said, the amended provisions still contain the qualifier that the information need only be provided “to the extent that it is known to the territorial authority” without any obligation on that authority to undertake hazard assessment work.

The proposed amendments will create a new obligation for regional councils to provide territorial authorities with natural hazard information but only to the extent that “it is known” to the regional council.¹⁹ This will help ensure that any hazard information held by the regional council is passed onto the territorial authority, but still does not ensure that the information is gathered in the first place.

Lastly, there is a provision that removes from territorial authorities and regional councils any civil or criminal liability if the information is provided “in good faith”²⁰ thereby excluding any action in tort on the basis that the information provided was not accurate. In theory this should help encourage councils to make more hazard information available even if it contains uncertainties.

5.3 Resource management plans

In a similar vein, although the RMA has regard to natural hazards and climate change, it does not place an explicit obligation on any party to identify and/or communicate risk. The provision that comes closest to this, is section 35(5)(j), which requires local authorities to keep “records of natural hazards to the extent that the local authority considers appropriate for the effective discharge of its functions”. But this is a passive ‘keeping records’ obligation rather than an active and anticipatory requirement to seek out important hazard and climate change information.

An obligation to collect natural hazard information could be implied from the functions of councils under the RMA. After all, it is arguably not possible to carry out a function adequately without the requisite information to inform decision-making. In this regard, regional councils have the function to “control the use of land for the purpose of the avoidance or mitigation of natural hazards”²¹ and territorial authorities have the function to control “any actual or potential effects of the use, development, or protection of land” for the purpose of “the avoidance or mitigation of natural hazards”.²²

These functions must be considered in the context of Part Two of the RMA and the requirement for all decision-makers (including councils) to “recognise and provide for ... the management of significant risks from natural hazards”²³ and to “have particular regard to ... the effects of climate change”.²⁴ These provisions further emphasise the need to consider and manage risk, but still fall short of imposing a positive obligation on councils to undertake a regional and/or local risk assessment to inform their planning and decision-making.

At first glance, councils appear to have overlapping natural hazard responsibilities under the RMA. However, under section 62(1)(i)(i) the



Coastal erosion damage to public walkway at Snells Beach (Neale Wills)

regional policy statement must state “the local authority responsible in the whole or any part of a region for specifying the objectives, policies, and methods for the control of the use of land to avoid or mitigate natural hazards or any group of hazards”. If the regional policy statement fails to deal with the matter, there remains some ambiguity as to the dividing line between regional council and territorial authority roles, which risks leading to gaps or duplication in effort.

A spotlight on council responsibilities for management of natural hazards in the Bay of Plenty

Change 2 to the Bay of Plenty Regional Policy Statement clarifies responsibilities between councils for addressing natural hazards. Under the policy statement, the regional council is to have responsibility for *hazard susceptibility mapping* for volcanic activity, earthquakes, tsunamis, coastal erosion and inundation and flooding outside urban areas with reticulated stormwater networks. The regional council is also to have responsibility for undertaking *area-based natural hazard risk analysis and evaluation* for a narrower risk of hazards comprising volcanic activity, liquefaction and tsunamis. Territorial authorities have responsibility for *hazard susceptibility mapping* for urban flooding, landslip and debris flow and *natural hazard risk analysis and evaluation* for those matters not within the responsibilities of regional councils (so including earthquakes, coastal erosion and inundation and flooding).²⁵

The New Zealand Coastal Policy Statement 2010 (NZCPS) provides more direction on identifying hazards within the coastal environment (but not elsewhere). It requires the identification of “areas in the coastal environment that are potentially affected by coastal hazards (including tsunamis), giving priority to the identification of areas of high risk of being affected”.²⁶ The assessment of hazard risks is to be over at least 100 years. The NZCPS identifies a long list of matters that must be given attention to when assessing hazard risks, such as physical drivers and processes, natural dynamic fluctuations and geomorphological character. The NZCPS is to be given effect to in regional policy statements and regional and district plans²⁷ meaning that their provisions should be based on an assessment of coastal hazard risk. DOC has prepared a useful guidance note as to how the policy is to be applied.²⁸

Under Policy 24 of the NZCPS, “national guidance and the best available information on the likely effects of climate change on the region or district” are to be taken into account.²⁹ This reference to national guidance, rather

than incorporating it directly into the NZCPS, enables the material to be readily updated as new information on climate change and coastal hazards becomes available. Various national guidance documents have been produced by the Ministry for the Environment on coastal hazards and climate change. The latest are the 2017 *Coastal hazards and climate change: Guidance for local government* and the 2022 *Interim guidance on the use of new sea-level rise projections* which is designed to reflect the latest sea-level rise scenarios.

A spotlight on national planning standards and natural hazards

The RMA provides for the promulgation of national planning standards to set out requirements for the “structure, format, or content of regional policy statements and plans” in order to achieve national consistency amongst other things.³⁰ The first set of national planning standards was published in November 2019 and updated in February 2022. They set out a common structure for policies and plans which include a chapter on “hazards and risks” in the regional policy statement and chapters on “natural hazards” in regional and district plans. Coastal hazards are to be included in a coastal environment chapter. Both the natural hazard and coastal hazards chapters in district plans are identified as district-wide matters.³¹

The national planning standards also identify spatial layers for district plans and these include zones which spatially identify and manage “an area with common environmental characteristics or where environmental outcomes are sought” and overlays which spatially identify “distinctive values, risks or other factors which require management in a different manner from underlying zone provisions”.³² This indicates that overlays are to be the prime method for spatially identifying the location of natural hazard risks in district plans.

The Government is in the process of repealing the RMA and replacing it with a Spatial Planning Act and Natural and Built Environment Act. These two pieces of legislation are currently before the House in Bill form – the Spatial Planning Bill 2022 (SPB) and Natural and Built Environment Bill 2022 (NBEB). Our discussion of them refers to the content of those Bills as introduced into the House.

Under the SPB, regional planning committees preparing regional spatial strategies “must ensure that the strategy is – based on robust and reliable evidence and other information, including mātauranga Māori, that is

proportionate to the level of detail required in the particular context”.³³ This should require councils to collect natural hazard and climate risk information that is at least sufficient to inform high level regional spatial planning. However, the clause leaves considerable discretion as to what level of detail will be deemed ‘sufficient’.

The NBEB effectively carries over the respective natural hazard functions of regional councils and territorial authorities from the RMA.³⁴ However, it does have more specific provisions referencing natural hazards and climate risks. The system outcomes, which the national planning framework (NPF) and all plans must provide for, include “in relation to climate change and natural hazards, achieving – the reduction of risks arising from, and better resilience of the environment to, natural hazards and the effects of climate change”.³⁵

A requirement to reduce risks implies a need to identify them in the first place and one could therefore expect the work undertaken to prepare combined Natural and Built Environment Plans (which will span a region) to include risk identification at a regional level, to the extent this has not already been undertaken to inform the regional spatial strategy. It will also be important to identify what level of risk reduction might be required in any particular place, and the extent to which this might be achieved through defence (ie through constructing seawalls and stopbanks) as opposed to retreat. The NPF could usefully provide a framework for how such issues should be addressed in plans.

The NPF may also “direct regional planning committees and local authorities to collect or publish specified information in order to achieve the provisions of the national planning framework”.³⁶ Coupled with a requirement for the NPF to provide direction for each system outcome³⁷ (including that referring to natural hazards and the effects of climate change) this clearly provides a power for national direction to require the collection and publishing of natural hazard and climate risk information. However the ability to provide such direction is no surety that it will actually be produced.

5.4 Infrastructure strategies

Local authorities also have natural hazard information obligations under the Local Government Act 2002 (LGA), but these are expressed mainly in general terms. Natural hazard risk only explicitly features in the preparation of 30-year infrastructure strategies, which must “provide for the resilience of infrastructure assets by identifying and managing risks relating to natural hazards and making appropriate financial provision for those risks”.³⁸ A similar provision has been included in the new Water

Services Entities Act 2022³⁹ which applies to water services infrastructure managed by the new water services entities when they are established.

5.5 Overall assessment

A summary of the current and proposed statutory provisions relating to the identification and communication of climate risk information is shown in Figure 3. Overall, although there is a robust framework for the preparation and communication of a regular national climate risk assessment, by an independent agency, there is no requirement of similar rigour at a regional or local level. Under current law, outside the coastal environment, no agency is obliged to regularly collect and make available natural hazard and climate risk information.

While proposed amendments to the LGOIMA regarding the information presented on LIMs, should make these documents more informative, they will only contain the information that the territorial authority holds. Broadly speaking, they also only communicate information to prospective property purchasers, and only to those who can afford the not insignificant cost typically charged to prepare a LIM. Current property owners do not typically order a LIM so may remain ignorant of new hazard information. The LGA effectively places an obligation on councils to identify natural hazard risks affecting infrastructure assets owned by them, which is important, but it does not extend to risks affecting assets owned by other parties.

The proposed new SPB and NBEB have the potential to result in more climate risk assessments being undertaken at a regional level. However they fall short of placing a direct obligation on any particular agency to undertake regular regional risk assessments in a similar manner provided for at a national level in the Climate Change Response Act. They also provide no guidance as to how such assessments might be undertaken and on what basis. Such matters have been left to the NPF rather than being provided in the legislation itself.

The NZCPS will be superseded by the NPF in the new resource management system. It is unclear to what extent its provisions may be retained or modified. The Ministry for the Environment has indicated that the first generation NPF will largely consist of existing national direction transitioned into a combined document.⁴⁰ The NZCPS’s approach of referring to national guidance documents appears to be sound. It means they can be regularly updated, and councils and regional planning committees required to follow the latest approaches to risk assessment.

Statute or policy	Effect
Climate Change Response Act	National risk assessment to be prepared 6-yearly by independent body and made public.
Local Government Official Information and Meetings Act	Inclusion of risk information on LIMs. Proposed amendments clarify and strengthen requirement to include risk information on LIMs, require regional councils to provide territorial authorities with the natural hazards information they hold, and reduce council liability associated with the provision of information. <i>Limitation:</i> No requirement to gather natural hazard information in the first place.
Resource Management Act	The NZCPS requires the identification of areas of the coastal environment potentially affected by coastal hazards over 100 years. It also requires national guidance and the best available information to be taken into account when doing so. The national planning standards require regional and district plans to include a chapter on natural hazards with coastal hazards to be included in a coastal environment chapter. Overlays are to be the prime spatial tool to identify risks in district plans <i>Limitation:</i> No explicit obligation for collection or communication of risk information although arguably this can be implied from council functions and prescribed content of plans.
Spatial Planning Bill and National and Built Environment Bill	Have stronger provisions around collection of information to inform strategies/plans, and further direction can be provided in the NPF. <i>Limitation:</i> The statutory provisions fall short of requiring regular regional risk assessments and providing minimum requirements for how they should be undertaken and what should be included in them.
Local Government Act Water Services Entities Act	Councils must identify and manage natural hazard risks affecting their infrastructure assets when preparing 30-year infrastructure strategies.

Figure 3 Summary of statutory provisions for identifying and communicating climate risk

Given the growing size and urgency of the climate emergency, there could be a legal obligation to prepare and make public regular climate risks assessments at a regional level, potentially in the new Climate Adaptation Act. Such risk assessments could be required to follow national guidance which is regularly updated as new information on climate risks comes to hand. They will need to be comprehensive, addressing all relevant climate risks to communities, and not just focus on council owned and managed assets.

Endnotes

- 1 For components see also Olufson S E, 2019, *Managed retreat components and costing in a coastal setting*, Masters of Science thesis, Victoria University of Wellington
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- 3 Chair of the Council of Economic Advisers, 2023, *Economic report of the President*, The White House, Washington, at 293
- 4 Harris K, 2023, 'How mātauranga Māori is being rolled out in schools, Rangi Mātāmua explains the knowledge system', *New Zealand Herald*, 7 March
- 5 Climate Change Response Act 2002, section 52P
- 6 Climate Change Response Act 2002, section 5B
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- 8 Ministry for the Environment, 2020, *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, Wellington, at 9
- 9 Ministry for the Environment, 2020, *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, Wellington, at 60
- 10 Urban Development Act 2020, section 32(2)(b)
- 11 Frank T, 2022, 'Texas enacts nation's strongest flood disclosure law', *Climatewire*, 6 January
- 12 Local Government Official Information and Meetings Act 1987, section 44A(2)(a)
- 13 Local Government Official Information and Meetings Act 1987, section 44A(2)(a)
- 14 <https://takutaikapiti.nz/articles/the-science-timeline/>
- 15 *Weir v Kapiti Coast District Council* [2013] NZHC 3516, at [3] and [4]
- 16 *Weir v Kapiti Coast District Council* [2013] NZHC 3516, at [58]
- 17 *Weir v Kapiti Coast District Council* [2013] NZHC 3516, at [68]
- 18 Local Government Official Information and Meetings Amendment Bill 2022, clause 8 (new section 44B)
- 19 Local Government Official Information and Meetings Amendment Bill 2022, clause 8 (new section 44C)
- 20 Local Government Official Information and Meetings Amendment Bill 2022, clause 8 (new section 44D)
- 21 Resource Management Act 1991, section 30(1)(c)(iv)
- 22 Resource Management Act 1991, section 31(1)(b)(i)
- 23 Resource Management Act 1991, section 6(h)
- 24 Resource Management Act 1991, section 7(i)
- 25 Change 2 (Natural Hazards) to the Bay of Plenty Regional Policy Statement, policy NH 12C
- 26 New Zealand Coastal Policy Statement 2010, Policy 24(1)
- 27 Resource Management Act 1991, sections 62(3), 67(3)(b) and 75(3)(b)
- 28 Department of Conservation 2017, *Coastal hazards: NZCPS 2010 guidance note*, Department of Conservation, Wellington
- 29 New Zealand Coastal Policy Statement 2010, Policy 24(1)
- 30 Resource Management Act 1991, section 58B(1)
- 31 Ministry for the Environment, 2019, *National planning standards*, Ministry for the Environment, Wellington, at 9, 13, 15 and 34
- 32 Ministry for the Environment, 2019, *National planning standards*, Ministry for the Environment, Wellington, at 50
- 33 Spatial Planning Bill 2022, clause 28(a)
- 34 See Natural and Built Environment Bill 2022, clauses 644(a)(v) and 646(a)(i)
- 35 Natural and Built Environment Bill 2022, clause 5(b)(iii)
- 36 Natural and Built Environment Bill 2022, clause 60(1)(f)
- 37 Natural and Built Environment Bill 2022, clause 57(1)(a)
- 38 Local Government Act 2002, section 101B(3)(e)
- 39 Water Services Entities Act 2002, section 158(4)(e)
- 40 <https://environment.govt.nz/publications/our-future-resource-management-system-overview/>

6 Stopping development in hazard prone areas



New build in hazard area, Matarangi

"The most important thing we can do is ensure people are not being placed in harm's way and do not suffer the loss and disruption caused by a flood event. Avoiding the impact on lives and people's wellbeing must be the priority." Amanda Whiting, CEO, IAG New Zealand

It is imperative that we prevent new or intensified development occurring in high risk areas. Allowing an increase in the number of people, structures and assets located in risky areas will result in more people being exposed to harm (and in the worst cases death), unnecessary damage to property, and ultimately a need to relocate them out of harm's way. However, it is clear that councils are still allowing new buildings to be constructed in risky areas.

The extent to which new development has been occurring in areas subject to natural hazard risk, in the Auckland region, came to light as a result of media inquiries in the wake of the Auckland Anniversary floods. Since the beginning of 2016, Auckland Council has granted resource consent for 9,220 new dwellings in flood plains and a further 4,295 dwellings in flood prone areas.¹

When asked why development was still going ahead in flood zones, Climate Change Minister James Shaw identified several possible reasons including there being "no national direction to councils not to authorise construction on flood plains", a housing crisis so "councils are feeling the pressure to expand housing stock", and poor council resources where "a lot of council planning capability was built in a world where we didn't have the effects of climate change being felt as markedly as we are now".

A spotlight on state houses built on flood-prone land

Of the 70,000 homes managed by Kāinga Ora, just over 15 per cent (over 10,000 homes) are in flood-prone areas and at least a further 500 are exposed to coastal flooding. New homes are continuing to be built in hazard-prone areas with 16 per cent of planned investments being in flood-prone areas and 1.7 per cent in areas at risk of sea level rise.²



Coastal erosion, Haumoana

In this section we examine the extent to which current legal tools enable councils to say ‘no’ to new development, or intensification of existing development, in areas subject to natural hazards and climate risks.

6.1 Building consents

On the face of it, the Building Act 2004 prevents a building consent being issued for building in a hazardous area. Section 71(1)(a) states that “A building consent authority must refuse to grant a building consent for construction of a building, or major alterations to a building, if – (a) the land on which the building work is to be carried out is *subject or is likely to be subject to 1 or more natural hazards*”. “Natural hazard” is then defined to include erosion, falling debris, subsidence, inundation and slippage.³

However, this clear statement designed to avoid development on risk-prone sites is then undermined (no pun intended) by a subsequent qualifying section of the Act which provides for a waiver. This states, in section 72, that the territorial authority *must* grant a building consent if the building consent authority considers that the building work “*will not accelerate, worsen, or result in a natural hazard on the land*” or any other property and “*it is reasonable to grant a waiver or modification to the building code in respect of the natural hazard concern*”.

What is “reasonable” is not explained, and there are no qualifiers to it (apart from making the hazard worse), thereby providing wide discretion to grant consent. There are also few precedents to guide decision-makers.⁴ Overall, such discretion must be exercised within the ambit of the purpose of the Act which includes ensuring that “people who use buildings can do so safely and without endangering their health”.⁵ This focuses on physical danger to people (“life safety”),⁶ rather than on whether the building itself might be subject to damage.

Another factor which facilitates the grant of waivers is the exemption from liability under section 392. This provision states that the building consent authority cannot be held liable in any civil proceedings for issuing a building consent while knowing that the land on which the building will be situated “was, or was likely to be, subject to damage arising, directly or indirectly, from a natural hazard”.

If a section 72 waiver is granted then the natural hazard concerned needs to be notified to the Register-General of Land, so it can be noted against the land title.⁷ This at least helps to inform future property purchasers of the risk.

Auckland Council has issued a Practice Note setting out its approach to consenting building work on land subject to natural hazards including granting waivers under section 72. The Practice Note indicates that a waiver is able to be granted for a range of hazards including coastal erosion (on the basis that it is a gradual process which will allow people to evacuate safely); subsidence and slippage (so long as this is moderate or minor and people would survive the event without risk to life or injury); and inundation (so long as the process is gradual and people are able to leave or be evacuated safely).⁸

Where there is dispute about whether such a section 72 waiver should be granted the matter is determined by the chief executive of the Ministry of Business, Innovation and Employment (MBIE) on application by any party.⁹ Such determinations relating to natural hazards came under particular scrutiny in Haumoana and Matatā as described in the spotlights below.

A spotlight on refusal of building consents at Haumoana due to risks from coastal erosion

In 2005, the Hastings District Council refused to grant a building consent for a house to be built on the seafront at Haumoana. The coastal edge at Haumoana had been retreating for some decades, with one assessment indicating that the stretch of coast on which the house was to be built had already retreated by some 40 metres since 1930.¹⁰ The house was to be constructed on piles and connected to an existing old-style septic tank. The property owner claimed that the house would be removed when coastal erosion brought mean high water springs within 10 metres of the property, this distance effectively acting as a trigger point.

The matter was referred to determination by the Chief Executive of the then Department of Building and Housing. It focused on whether or not the house plans complied with the Building Code on the basis that, where a proposal complied with the Building Code “throughout its specified intended life”, a building consent must be issued under section 72 (ie a waiver must be granted).¹¹ This reasoning effectively meant that section 72 only came into play (ie consent could be withheld) when the Building Code was not met.

The determination concluded that the building *could* comply so long as the structure was removed once a trigger point was reached in terms of coastal erosion (ie the intended life of the building was

defined by a trigger point). But as this was not specified in the application itself (which indicted a 40-year intended lifespan) it *did not in fact* comply with the Building Code. On this basis, the Chief Executive supported the Council's decision to refuse building consent, but left it open for the property owner to come back with a differently worded application (but no actual change to the proposal) which would then be granted.¹²

The approach taken to the interpretation of section 72 in this determination placed strong reliance on the Building Code being adequate to avoid inappropriate building in hazard zones.

A spotlight on refusal of building consents at Matatā due to risk from debris flows

In May 2005, Matatā, a small coastal settlement in the Eastern Bay of Plenty, was inundated by two debris flows (rapid flows of water and sediment) which deposited around 300,000 cubic metres of silt, logs and boulders onto the settlement. Twenty-seven homes were destroyed, and 87 other properties damaged, but fortunately no-one was killed. The greatest damage occurred on the Awatarariki stream fanhead. It later became apparent that the town had been built on a series of historic debris flows, so this was not a one-off event.¹³

After an initial recovery period, the Whakatāne District Council commissioned an engineering firm to investigate risk mitigation options for properties located in the potential path of future debris flows. In late 2006, as a result of this work, the Council decided to proceed with constructing a 17 metre high debris dam in the catchment to reduce the risk to the 57 worst affected properties.¹⁴

The Council also served notices on eight houses in the high risk zone, under section 124 of the Building Act (which applies to a building that is “dangerous, affected, or insanitary”), requiring them not to be reoccupied. This was not due to any damage to the houses per se (they had fortunately escaped damage from the 2005 event) but because of the future risk from a debris flow in the event of heavy rainfall. The notices were challenged by affected property owners who wished to reoccupy their houses at their own risk. This led to the matter being referred to the Chief Executive of the then Department of Building and Housing for a determination.

The determination was not specifically about the grant of a section 72 building consent waiver, but the Council used it as a basis for subsequently granting waivers in order to issue building consents for houses on the fanhead. The reasoning in the determination is therefore of relevance to the issue of building consents for construction in high risk areas.

At the outset, the determination stated that preventing people from occupying their houses was such a severe restriction of property rights that it was only justifiable if “injury or death is likely in the ordinary cause of events”.¹⁵ It then went on to review the nature of the risk, as set out in relevant technical reports, to determine whether injury or death was “likely”. The technical reports indicated that the 2005 debris flow event had a 200 to 500 return period.

The determination concluded that injury or death was “likely” in a storm with a return period of 500 years, and “might be likely” in a storm with a return of 200 years, but that such long return periods did not constitute the “ordinary course of events”.¹⁶ It therefore overturned the Council's decision to issue the notices and permitted the houses to be reoccupied. Interestingly, there was no mention of the impacts of climate change potentially reducing the return periods.

Further investigations into the viability of constructing a debris dam eventually led to the conclusion, in 2012, that engineering solutions to reduce the risk were not feasible. By this time building consents had been issued and six houses rebuilt or relocated in the high risk area.

When it became clear that the risk could not feasibly be engineered away, the Council started declining building consents in the high risk area. In 2014, its decisions were challenged by two property owners who were seeking to rebuild their holiday homes. They sought a second determination under the Building Act, which this time directly focused on the application of section 72 and therefore necessitated a different test for risk.

The determination found that the land was “likely” to be subject to a natural hazard on the basis that a debris flow, smaller than the 2005 event, had a probability of every 35 years or so. However, it concluded that the 500 year return for an event of the same scale as the 2005 debris flow did not constitute “likely”.¹⁷ It also found that the new buildings could “worsen” the effects of a natural hazard on other property, as the buildings could become mobilised by the debris flow

and damage other structures. This was even where the increased impacts were marginal in the context of a major event.¹⁸ The determination also concluded that the buildings would not comply with the Building Code, as there was not the required low probability that the houses would become unstable during their intended life, due to the removal of support by debris flow or loads imposed by water.

When determining whether the grant of a waiver was “reasonable” the determination focused on whether non-compliance with the Building Code would reduce life safety (and not whether it would increase property damage). The determination held that there was a high probability of loss of life, non-compliance with the Building Code and a lack of any mitigating factors which meant that it was not reasonable for a waiver to be granted.¹⁹

Although this decision addressed potential loss of life, it implies that where this is a high risk of property damage from a natural hazard, but not directly of loss of life, a waiver should be granted thereby enabling construction of homes and structures in areas where they will potentially be subject to damage.

The application of the section 72 waiver can clearly enable homes and structures to be built in high hazard zones so long as there is little risk to human life. Arguably this is not in the public interest, as it can result in structures being built in hazard zones where damage can occur, and where managed retreat might be needed in the future. The building consent system is currently under review with MBIE issuing a public discussion document in July 2022.²⁰ However the review has a focus on improving the mechanics of the system (ie institutions, practice and management), rather than the substantive outcomes.

The impacts of recent storm events have highlighted that a significant number of houses have been inappropriately built in hazard-prone areas. It is timely to review the operation of the Building Act in terms of addressing risks from natural hazards and climate change to ensure that the outcomes are in the broader public interest.

6.2 Restrictive rules in RMA plans

From the outset, a territorial authority (the district or city council) *may* refuse to grant a subdivision consent under the RMA, or impose conditions if it considers there is a “significant risk from natural hazards”. However, a

council is not *required* to refuse consent in such a situation. To definitively conclude that there is a significant risk the territorial authority must make a combined assessment of the likelihood of the hazard occurring, the material damage to land or structures that would result, and any likely subsequent use of the land that would accelerate, worsen or result in such material damage.²¹

Under the RMA it may be possible to include restrictive rules in a plan, which apply to land situated in a high hazard area, to prevent future development. These could take the form of rules attached to a particular hazard overlay or zone that identify future incompatible development as a non-complying or prohibited activity. If prohibited, this would mean that a resource consent could not be sought or granted.²² Such provisions would be consistent with the council's obligation to recognise and provide for the management of significant risks from natural hazards under section 6(h).

There are limits to the extent that restrictive rules can be placed on land under the RMA. If they would render an interest in land “incapable of reasonable use” the landowner may challenge the plan provision in the Environment Court. “Reasonable use” is defined in the Act as including “the use or potential use of land for any activity whose actual or potential effects on any aspect of the environment or on any person (other than the applicant) would not be significant”.²³

If a plan provision is challenged on this basis, the Environment Court determines if it does in fact render the land incapable of reasonable use and whether it “places an unfair and unreasonable burden on any person who has an interest in land”.²⁴ Where the challenge is successful the Environment Court may direct the local authority to either modify or delete the offending plan provision, or acquire the land under the Public Works Act, but only if the owner agrees. If the owner does not agree to land acquisition the offending plan provision will be removed.

A proposal to ‘downzone’ land in a high risk area, from residential to open space/coastal protection for example, would arguably be caught by these provisions. This means that the imposition of restrictive rules could only take place if the land owner agreed to the land being acquired by the territorial authority, and the territorial authority provided compensation based on the market value of the land as required under the Public Works Act.²⁵ This is a significant disincentive to preventing future development on land already zoned for it (such as residential or commercial), particularly if multiple properties are involved.

A spotlight on the use of overlays in the Porirua proposed district plan

The Porirua proposed district plan provides an example of how overlays have been used to spatially identify areas within the city that are (or are modelled to be) subject to natural hazards. An associated planning framework manages activities based on their sensitivity to those risks. For example, residential units, hospitals, educational facilities and visitor accommodation are identified as hazard-sensitive activities which are non-complying in high hazard overlay areas. In contrast, park facilities, parks furniture and buildings associated with temporary activities are identified as being less-hazard-sensitive activities and so are permitted in high hazard overlay areas.

The proposed reforms under the NBEB make subtle (but important) changes to the RMA provisions. Clause 139 enables land owners to challenge a planning provision rendering their interest in land incapable of reasonable use on a similar basis as under the RMA. The tests the Environment Court applies to such a challenge are essentially the same. However, an addition has been inserted stating that in determining whether the grounds set out are met “the court may assess and take into account the risks or future risks (if any) identified as relevant to the land in question”.²⁶ Presumably this is so the court can take into account the actual and foreseeable impacts of natural hazards on the ability of the owner to use the land irrespective of the zoning.

Under the NBEB (as with the RMA), if the grounds for challenging the plan provision are established, the Court can direct that the plan provision be removed/modified *or* that the local authority should acquire the land under the Public Works Act so long as the landowner agrees *and* the local authority meets the cost of the acquisition. However, the NBEB has included a further important provision. Where any offer to purchase the land is made by the local authority, but is not accepted by the landowner, the proposed provisions in the plan remain in force.²⁷

Although, strictly speaking, this does not enable compulsory acquisition as landowners must agree to the purchase, practically speaking they are given little choice in the matter. Failing to agree will result in the land being downzoned so it cannot be developed in any event. The NBEB therefore provides a potent tool to exclude further development from land which is currently zoned for it. That said, local authorities will need to be willing and able to provide compensation at current market values. This would undoubtedly operate as a considerable barrier where more than a few properties are affected.

6.3 New Zealand Coastal Policy Statement

As indicated above, the NZCPS provides guidance on how to address coastal hazards within the coastal environment under the RMA. It must be given effect to in council RMA policies and plans, which in turn provide the policy and rule framework for consenting. Objective 5 of the NZPCS sets out clearly what is intended. This is “To ensure that coastal hazard risks taking account of climate change, are managed by – locating development away from areas prone to such risks...”.

Policy 25 directly addresses the issue of avoiding new subdivision and development in coastal hazard zones. It states that “In areas potentially affected by coastal hazards over at least the next 100 years: – (a) *avoid* increasing the risk of social, environmental and economic harm from coastal hazards; (b) *avoid* redevelopment, or change in land use, that would increase the risk of adverse effects from coastal hazards” and “(d) *encourage* the location of infrastructure away from areas of hazard risk where practicable.”



House subject to coastal erosion, Hahei

The use of “avoid” in subclauses (a) and (b) is significant. The Supreme Court in the *King Salmon* case determined that “avoid” means “not allow” or “prevent the occurrence of”.²⁸ Applied in the given context of NZCPS Policy 25, new development that increases risk of adverse effects from hazards is not to be permitted in the coastal environment. Planning documents under the RMA must give effect to Policy 25, and therefore should contain appropriate policies and rules. However, if a plan fails to do so such development may be consented, as consenting authorities need only “have regard to” Policy 25 alongside a range of other matters when determining resource consents.

The requirement to consider hazards *over at least the next 100 years* under the NZPCS (and consequently the RMA) highlights an incongruity with the Building Act which only considers hazards over the intended life of the building which is *50 years or less if specified*²⁹ (although many building last much longer than that).



Erosion along Buffalo Beach, Whitianga

DOC’s guidance note on Policy 25 highlights a number of important aspects. The requirement to avoid increasing the risk of “social, environmental and economic” harm means “that decision-makers should take a broad view and consider the potential harm to biodiversity, natural character, public space, public access and amenity values, as well as to settlements and infrastructure.”³⁰ The requirement to avoid redevelopment or changes in land use that increases risks, means that more development or more expensive redevelopment should be avoided unless incorporating measures that reduce overall risk.

These directives are clear but there are two weaknesses in the regime. The first is the extent to which district plans, and consequently consenting, reflect these directives. A second more serious weakness is that the directives only apply to natural hazards within the coastal environment and not elsewhere in Aotearoa where communities are threatened by flooding, land slips and other natural hazard events.

National policy statements, such as the NZCPS, are indirect tools for achieving change. They rely on councils changing their plans to give effect to them. This can take some years, and there is no independent assurance that even if the plans are changed in a timely manner, that they will give effect to national documents unless the matter is taken to the Environment Court by a party. *This suggests that for something as important as avoiding new development in high hazard areas, direct statutory provision is to be preferred.*

National direction on managing natural hazard risk under the RMA only exists for the coastal environment. This leaves the rest of the country vulnerable to new development in high hazard areas. IAG New Zealand has recently called for the *implementation of a National Policy Statement to stop development in flood-prone locations*.³¹ This could be included in the new NPF under the NBEB.

Under the proposed reforms, the NBEB will identify as a system outcome “the reduction of risks arising from, and better resilience of the environment to, natural hazards and the effects of climate change.”³² The NPF is required to “include content that provides direction for each system outcome”³³ meaning that the NPF will need to provide the direction on the management of natural hazards which is currently missing under the RMA.

6.4 National Policy Statement on Urban Development

At the same time as we lack clear national policy to prevent new development in high hazard zones outside the coast, the NPS on Urban Development 2020 (NPS-UD) directs councils to promote more development (both up and out) in urban areas. This contributes to the issue of permitting development in risky areas (see Policy 3 below).

Policy 3: In relation to tier 1 urban environments [which includes Auckland, Hamilton, Tauranga, Wellington and Christchurch], regional policy statements and district plans enable:

- (a) in city centre zones, building heights and density of urban form to realise as much development capacity as possible, to maximise benefits of intensification; and
- (b) in metropolitan centre zones, building heights and density of urban form to reflect demand for housing and business use in those locations, and in all cases building heights of at least 6 storeys; and
- (c) building heights of at least 6 storeys within at least a walkable catchment of the following:
 - (i) existing and planned rapid transit stops
 - (ii) the edge of city centre zones
 - (iii) the edge of metropolitan centre zones; and
- (d) within and adjacent to neighbourhood centre zones, local centre zones, and town centre zones (or equivalent), building heights and densities of urban form commensurate with the level of commercial activity and community services

As can be seen above, there is no mention of suitability of land, or risks of natural hazards in Policy 3. These are dealt with as “qualifying matters” in section 3.32. The qualifying matters relevant to natural hazard risk include a matter of national importance under section 6, in this case “the management of significant risks from natural hazards” for which there is no current national direction; and a matter required to give effect to the NZCPS, in this case the requirement to “avoid” redevelopment or change in land use that would increase the risk of adverse effects from coastal hazards.

Even if such qualifying matters relevant to natural hazard risk are identified, the NPS-UD puts significant hurdles in the way of councils addressing them:

1. The council must “consider that it is necessary” to specify alternative heights and densities than are required by Policy 3 in order to provide for the matter (section 3.31(2))
2. The council must identify “by location” where the qualifying matter applies (section 3.31(2)(b))
3. The building heights and densities under Policy 3 must only be modified “to the extent necessary” to accommodate the qualifying matter (Policy 4)
4. The council’s section 32 evaluation report “must demonstrate” why the council considers that area subject to the qualifying matter
5. The report “must demonstrate” why the council considers the qualifying matter incompatible with the level of development directed by Policy 3
6. The report “must assess” the impact of limiting development capacity, height or density on the provision of development capacity
7. The report “must assess” the costs and broader impacts of imposing those limits.

When assessed as a whole, these requirements seem likely to discourage councils from limiting the density of development in areas with qualifying matters (including high hazard zones) unless the council is extremely determined to do so. In addition, the requirements in items 6 and 7, for councils to undertake assessments, appear unnecessary. If the land is subject to significant natural hazards then a more appropriate starting point might be that it is not intensified irrespective of the impact on provision of development capacity or other broader costs.

In 2021, provisions were inserted into the RMA requiring territorial authorities to also incorporate medium density residential standards into every residential zone.³⁴ Similar qualifying matters are provided for.³⁵ It should be noted that qualifying matters only apply to specific provisions that effect density standards (such as building height and coverage) or

the density of urban form enabled by the medium density residential standards and Policy 3. In addition, the density requirements only apply to district plans, and not regional plans, leaving open the possibility of regional plans managing hazard risks through restricting development density in hazard areas.

A spotlight on the implementation of the NPS-UD in Hutt City

Hutt City is located within the Hutt Valley which is subject to multiple natural hazard risks. Foremost, the Wellington Fault Line runs along the western edge of the valley. A significant portion of the urban area is subject to a high risk of liquefaction, particularly areas close to the coast including Petone and other southern suburbs of Lower Hutt.³⁶ The area is also at risk from land subsidence in the event of an earthquake, which is predicted to be as much as 1.9 metres in Petone which is close to the southern end of the fault line.

The southern parts of the Hutt Valley also feature significant tsunami risk with plans in place for residents to evacuate if such an event occurs. These exposures, combined with climate change induced storm surges and sea level rise, mean that Petone is at considerable risk of inundation by the sea as well as flooding from the Hutt River. Lower Hutt is also at risk from landslides due to the very steep slopes running along the edge of the Valley, slippage which can be generated by earthquakes and/or high rainfall.³⁷

In August 2022, to give effect to the NPS-UD, the Hutt City Council introduced Plan Change 56 to enable intensification in residential and commercial areas. Despite the evident multiple hazards, the plan change zoned the majority of Petone as 'High Density Residential' which provided for buildings of at least six storeys. Some hazard qualifying matters were included. The plan change included hazard overlays for the Wellington fault hazard, flood hazard, tsunami and coastal inundation. Not included, however, were hazard overlays for liquefaction or slope stability so these risks were not incorporated into the zoning provisions.

An exclusion zone of 20 metres for residential buildings was placed around the Wellington Fault. Buildings in the flood hazard overlay needed to have floor levels above the predicted 1 per cent flood annual exceedance (ie 100 year flood). Properties in the high coastal hazard area (which in Petone was only mapped by council to include a very small strip along the coastal frontage) could intensify from one

to two residential units as a permitted activity, with additional units being non-complying. This appears to be in direct conflict with Policy 25 of the NZCPS which directs councils to "*avoid*", not reduce (and certainly not *increase* such as the case here) redevelopment or change of land use that would increase the risk of adverse effects from coastal hazards.

These exclusions addressed some specific risks (but not all), and still allowed intensification (albeit less than in other areas) in the high coastal hazard areas. More concerning is that they do not appear to factor in the multiple risks that Petone is exposed to, which when taken together, would indicate that the area is not suitable for intensification at all. As stated by Toku Tū Ake Earthquake Commission (EQC) in its submission on the Plan Change:³⁸

Given the current level of risk from multiple natural hazards, and the likelihood that the risk will increase in the near future with climate change, Toku Tū Ake opposes long term planning for high-density residential intensification in Petone ... there are other areas of Lower Hutt which offer similar benefits for intensification, and do not put residents at the same level of risk to life and property.

Rather than allowing further development in Petone and Eastbourne, further development should be avoided (prohibited) in the High Coastal Hazard Zone, so the risk is not increasing, and legacy planning issues avoided in the future.

In addition, the EQC submitted that the High Coastal Hazard Zone should be extended to cover most of Petone (rather than only a narrow coastal strip) as most of the area would be subject to storm surge and inundation in the event of a 1.4-1.5 metre sea level rise (with sea level rise very likely to reach 1.3 metres by 2100). The submissions will be heard in April 2023.

The NPS-UD seems to be poorly configured for an increasingly riskier environment under a climate changing world where it is even more important to stop new development in areas at high risk from natural hazards. The policy pushes strongly in the other direction which seems unwise in the light of the impacts of the Auckland Anniversary floods and Cyclone Gabrielle on urban properties.

The NPS-UD should be amended to make it clear that intensification must not happen on land subject to significant natural hazards. This could be achieved through modifications when it is brought into the NPF under the NBEB. The NPF will also need to clarify how conflicts between achieving a reduction of risks arising from “natural hazards and the effects of climate change”³⁹ on the one hand, and promoting “the ample supply of land for development” and “housing choice and affordability”⁴⁰ on the other, should be resolved.

Under the SPB, regional spatial strategies must provide strategic direction on “areas that are vulnerable to significant risks arising from natural hazards, and measures for reducing those risks and increasing resilience”.⁴¹ This should enable a strategic approach to be taken to identifying risky areas where development should be avoided, particularly where multiple and cumulative risks are at play. However the SPB falls short of requiring areas that should not be developed, as a result of natural hazard risk, to be identified or areas where affected communities could be relocated to. Natural and built environment plans prepared under the NBEB must be consistent with regional spatial strategies thereby bringing through the strategic direction into land use rules.⁴²

6.5 Overall assessment

The current legal framework is not well configured to stop development in hazard zones. The Building Act can be relied on to achieve this, to some extent, but only through the refusal of building consents when the safety of people is at stake. Its provisions do not enable building consent to be withheld when buildings alone might be subject to hazard damage. The Act is currently under review, but the scope of that exercise does not currently include hazard issues.

Under the RMA, councils can refuse to grant subdivision consent when there is a significant risk from natural hazards, but they are not required to do so. It will usually not be possible to exclude development and downzone land in a high hazard zone unless the council offers to purchase the property at market value and the landowner agrees. This acts as a considerable barrier to downzoning, particularly if the council lacks the requisite funds to buy out properties and/or landowners to do not want to sell their land.

The NZCPS provides some clear directives on avoiding redevelopment and land use change in coastal hazard areas. However, there is no similar direction for how councils are to address natural hazards outside the coastal environment. In addition, as can be seen in the Hutt City spotlight above, the policies in the NZCPS appear to have been undermined (at least in practice) by the much more directive provisions of the NPS-UD.

The NPS-UD appears poorly configured to fully address natural hazards. Although providing for natural hazards as qualifying matters, the regime structure effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks through reducing density. It does however leave open the option for regional plans to address density in hazard areas. This bias for short-termism could be addressed when national policy is brought under the NPF.

The NBEB and SPB should improve the current situation. The NPF is required to provide direction on how to address natural hazards across the entire country and not just within the coastal environment. Regional spatial strategies will provide strategic direction on areas subject to significant natural hazard risks and measures for reducing those risks and increasing resilience. This provides an opportunity to identify areas where development should be excluded at a strategic level. The NBEB provides a stronger tool to acquire affected land, when it is to be downzoned, albeit with a requirement for market value compensation.

Statute or Policy	Effect
Building Act	Can prevent building in areas subject to natural hazards by refusing to issue building consents. <i>Limitation:</i> Building consents can only be refused where the building does not comply with the Building Code and there is a risk of loss of life.
Resource Management Act	Councils can refuse to grant a subdivision consent where there is a significant risk from natural hazards but are not required to do so. Councils can rezone land in a district plan to make future development a prohibited or non-complying activity. <i>Limitation:</i> Rezoning can be successfully challenged where the zoning would render the land incapable of reasonable use and the council does not acquire the land under the Public Works Act (with compensation) by agreement with the land owner.
New Zealand Coastal Policy Statement	Requires councils to avoid redevelopment or land use change that would increase the risks of adverse effects from coastal hazards. <i>Limitation:</i> The NZCPS only applies within the coastal environment. It is also reliant on being implemented in regional and district plans. There is no national policy on natural hazards concerning other parts of the country.
National Policy Statement for Urban Development	Directs territorial authorities to provide for more intensive development in urban areas. <i>Limitation:</i> Although natural hazards can be used as a qualifying factor to reduce density, the policy creates significant hurdles to doing this.
National and Built Environment Bill	The NPF is required to provide direction on the management of natural hazards, potentially filling the current gap in national direction under the RMA. Land can be rezoned in a Natural and Built Environment Plan to make future development a prohibited activity. Where the zoning would render the land incapable of reasonable use, this can only be done where the council offers to acquire the land under the Public Works Act (with compensation).
Spatial Planning Bill	Regional spatial strategies must provide strategic direction on areas subject to significant natural hazard risks, and measures for reducing those risks and increasing resilience, so can provide a strategic planning approach to avoiding new development in risky areas.

Figure 4 Summary of statutory provisions which can prevent development in areas subject to natural hazards



Collapse of State Highway 5 due to flooding, Hawkes Bay (Waka Kotahi)

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7 Undertaking adaptation planning



Community discussion, Wainui Beach

A key component of a managed retreat process is adaptation planning which enables a community to design a response to growing natural hazard and climate change risks. A planning approach increasingly used in contexts of uncertainty and risk is Dynamic Adaptive Pathways Planning (DAPP). DAPP identifies options and future response pathways, which can be adopted dependant on how the risk evolves in the future. Such planning includes the identification of preferred and alternative pathways for adaptation and triggers associated with their implementation.

A DAPP plan will normally include a range of short and long term actions. They may include maintaining the *status quo* (with no further development or intensification) until a certain level of risk is reached, investing in protection (assuming retreat or enhanced protection may be required at some future time), and preparing to retreat once the risk has become intolerable. An important component of DAPP is monitoring to enable effective implementation. This includes tracking relevant information to identify when trigger points are being approached.¹

The Ministry for the Environment (MFE) guidance on coastal hazards for local government, which is in the process of being updated, currently identifies five steps in the adaptation decision cycle (or DAPP) which are (see Figure 5):²

- building a shared understanding of processes, hazards and community resilience.
- exploring the future and how communities are affected by changing hazard risk in coastal areas.

- building adaptive pathways for a sustainable future.
- implementing the strategy in practice over time.
- monitoring the strategy using early signals and triggers (decision points) for adjusting between pathways.

Establishing when a risk might become “intolerable” is not a straightforward exercise. What is an acceptable risk to one person might be considered intolerable to another and a person’s risk tolerance can change over time. There are no established criteria in Aotearoa for determining such risk levels. In some overseas jurisdictions a risk of 10^{-4} per annum (or 1 person in every 10,000 at risk of being killed each year) is considered the boundary between tolerable and unacceptable risk.³ It means that if a person lived in the risky location for their entire life (of 80 years) they would have slightly less than a 1 in 100 chance of being killed by the hazard.⁴

Instead of defining different levels of risk (ie acceptable, tolerable and intolerable) the national climate change risk assessment adopted urgency categories as used in the United Kingdom’s national climate risk assessment. The highest urgency category “more action needed” was defined as “new, stronger or different government policies or implementation activities – over and above those already planned – are needed in the next five years to reduce long-term vulnerability to climate change”.⁵

We examine the extent to which the statutory framework makes provision for adaptive planning below.

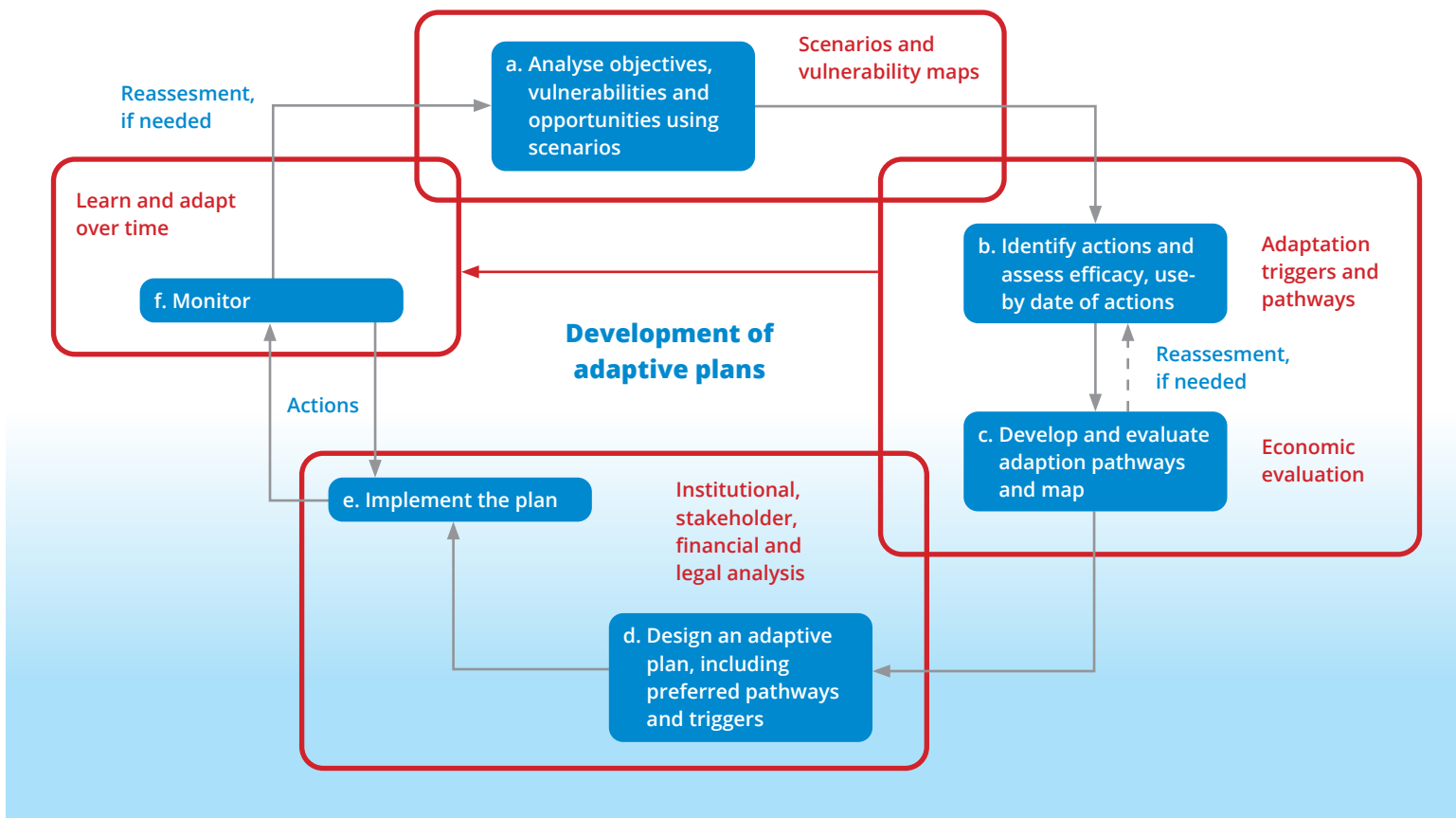


Figure 5 Dynamic adaptive pathways planning approach⁶

7.1 National adaptation planning under the Climate Change Response Act

Under the Climate Change Response Act, the Minister must prepare a national adaptation plan in response to each six-yearly national climate change risk assessment.⁷ The plan must set out the Government's objectives for adapting to climate change, strategies, proposals and policies for meeting those objectives, timeframes for implementation and measures and indicators for monitoring progress.⁸

The first national adaptation plan was released in August 2022.⁹ Its purpose was articulated as being "to enable New Zealanders to prepare for and adapt to the impacts of climate change". Its goals included to "reduce vulnerability", "enhance adaptive capacity" and "strengthen resilience" to climate change.¹⁰ The plan sets out a range of actions that the

Government intends to take. These actions include producing guidance on DAPP for central and local government within the first two years, guidance on integrating mātauranga Māori into adaptive planning and working with mana whenua in years 3 to 4, and guidance in preparing adaptation plans in years 1 to 4.¹¹ Such documents will likely be useful, but fall short of providing statutory backing for DAPP processes.

When preparing regional and district plans under the RMA (see below), councils must have regard to the national adaptation plan.¹² In the NBE, this linkage is moved up to the national policy level with a requirement that the Minister ensures that his or her decision on the final content of the NPF is "not inconsistent" with any relevant provisions in a national adaptation plan.¹³ This indicates that future national adaptation plans should be prepared with their applicability to the preparation of natural and built environment plans in mind.

7.2 Consultative processes under the Local Government Act

The LGA anticipates that councils will become involved in a wide range of planning processes with their communities. For this reason, in section 82 it sets out specific requirements for council consultation and decision-making. The principles of consultation include that:

- Affected and interested parties should be provided with “reasonable access to relevant information”
- They “should be encouraged to present their views to the local authority”
- They “should be given clear information” concerning “the purpose of the consultation and the scope of decisions to be taken”
- They “should have a reasonable opportunity to present their views to the local authority”
- Those views should be received with “an open mind” and be given “due consideration”
- The submitters should have access to “a clear record or description of the relevant decisions” and explanatory material including reports.

A local authority must also “ensure that it has in place processes for consulting with Māori in accordance with” the above requirements.¹⁴

When making decisions councils must also, under section 77, “seek to identify all reasonably practicable options for the achievement of the objective of the decision” and “assess the options in terms of their advantages and disadvantages”. Additionally, where significant decisions in relation to land or a body of water are involved (which would usually be the case with adaptive planning and managed retreat) they must “take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites, wāhi tapu, valued flora and fauna, and other taonga”.¹⁵

The LGA also provides for the development of a long term plan which has relevance to climate adaptation. However the long term plan only covers at least 10 years, but it must include an infrastructure strategy (which must be over at least 30 years) and a financial strategy.¹⁶

The provisions of the LGA provide a clear overall framework for councils to undertake adaptive planning in consultation with the community. That said, they do not provide a framework for the various stages of DAPP.

A spotlight on the Clifton to Tangoio Coastal Hazards Strategy 2120

Hawkes Bay is an area of multiple risks. It borders on the Hikurangi subduction zone, situated just off the coast, which creates significant earthquake and tsunami risks. Much of Napier is built on low-lying land uplifted by the 1931 earthquake, with nearly 8,000 homes being less than 1.5 metres from mean high water springs. The Heretaunga Plains, in which Napier and Hastings sit, is also subject to flooding with a network of pump stations and 248 kilometres of stopbanks designed to mitigate the risk. High groundwater around Napier, and soils subject to liquefaction, also create significant further risks factors.¹⁷

When Cyclone Gabrielle impacted the region, in February 2023, the nature of this risk hit the national consciousness. The event marked the “most significant weather event to hit Hawkes Bay since regional council records began”. Rainfall levels were 500 per cent above normal for the region and river flows averaged more than 1,000 per cent above normal. Five kilometres of the stopbank network was breached during the flooding. Tragically eight people lost their lives, 87 homes were red stickered and 1,034 homes yellow stickered.¹⁸ Many farms and orchards were damaged.

Although the damage from Cyclone Gabrielle stemmed largely from very high rainfall and rivers breaching their banks, it was the coastal erosion hazard that had previously preoccupied the attention of the three councils in the region. Napier City Council, Hastings District Council and Hawkes Bay Regional Council had come together in 2014 to prepare a coastal hazards strategy. The strategy incorporated a DAPP methodology.¹⁹

The process started with the councils commissioning a technical assessment, to help define the problem, which considered coastal hazards across 16 coastal units. This was followed by the formation of multiple ‘assessment panels’ representing the interests of communities, tangata whenua and the relevant agencies. The panels developed responses to the coastal hazards. Their work was informed by the technical assessments, a cultural values assessment and a social impact assessment and valuation. These responses were then brought together into a series of recommended actions. These included,

for the nine priority areas, a mix of the status quo, beach renourishment, control structures, inundation protection and sea walls. Despite the significant risks, managed retreat was only contemplated for three out of the nine areas, and then only after at least 50 years.²⁰

It was during implementation that the councils started to encounter significant roadblocks in the planning process. First, the total cost of the works was high, in 2016 costed at \$130-\$285 million over the 100 year planning horizon. Secondly, there was little national guidance on who should fund such works let alone undertake the ongoing maintenance and repairs.²¹

The councils looked to establish a fund to offset some of these future costs, particularly the 'public good' component of the works. They proposed targeted rates (of around \$30 per property per annum) to collect the remaining costs off the beneficiaries. But this has not proceeded due to the councils disagreeing on who should collect the targeted rates. More fundamentally, the councils disagreed on who should take the lead role in coastal adaptation in the region.²²

This case illustrates that without a stronger framework for adaptation planning, specifically concerning responsibilities and sources of funding, plans developed by the community will likely struggle to be implemented.

7.3 Statutory planning under the Resource Management Act

The RMA provides for a range of policies and plans including national policy statements (and the NZCPS). Regional policy statements inform the integrated management of the natural and physical resources of the whole region. Regional plans then assist regional councils to undertake their functions including control of the use of land for the avoidance or mitigation of natural hazards. District plans assist territorial authorities to carry out their functions including the control of the effects of land use to avoid or mitigate natural hazards.

The NZCPS provides high level policy for adaptation planning which must be given effect to in council RMA policies and plans. Policy 25(c) specifically requires councils "in areas potentially affected by coastal hazards over at least the next 100 years" to "encourage redevelopment, or change in land use, where that would reduce the risk of adverse effects from coastal

hazards, including managed retreat by relocation or removal of existing structures or their abandonment in extreme circumstances, and designing for relocatability or recoverability from hazard events" (emphasis added). This policy statement will be incorporated into the first generation national planning framework under the NBEB.

Under the NBEB the various RMA plans will be combined into regional natural and built environment plans. The SPB requires new regional spatial strategies to provide strategic direction on key matters including:²³

areas that are vulnerable to the effects of climate change both now and in the future, and measures for addressing those effects and increasing resilience in the region, including indicative locations for—

- (i) major new infrastructure that would help to address the effects of climate change in the region; and
- (ii) areas that are suitable for land use changes that would promote climate change mitigation and adaptation:

All these planning documents must be reviewed every 10 years, a relatively short time horizon. The new regional spatial strategies will provide a broad spatial framework for adaptation planning. The regional and district plans (and replacement natural and built environment plans) provide a rules-based framework for consenting, and therefore are different to a DAPP plan, but could be used to implement such a plan. For example, a pre-determined trigger in the DAPP plan, could initiate a RMA plan change to implement the preferred adaptation pathway at that point. Or alternatively, DAPP could be pre-built into the planning framework, such as through providing for a different activity status to kick in when a trigger point has been reached (eg development becomes non-complying or prohibited when coastal erosion reaches a pre-determined distance from affected properties).

7.4 Māori adaptation planning

Many Māori communities are in the process of undertaking and/or implementing climate change adaptation planning. There are several hooks for such planning to be recognised and implemented through statutory processes. The RMA provides for Mana Whakahone a Rohe which are designed to set out how tangata whenua, through their iwi authorities, can participate in resource management and decision-making processes under the Act.²⁴ In addition, when preparing plans councils must "take into account" relevant planning documents recognised by iwi and lodged with the council.²⁵

These provisions have been strengthened under the NBEB. The Mana Whakahone a Rohe must record the agreement of the parties about how they will work together “on matters relating to climate change adaptation and natural hazards”.²⁶ A regional planning committee must “have particular regard to” any relevant planning document recognised by an

iwi authority²⁷ which could include a tribal climate adaptation strategy or plan. Also, an iwi or hapū may provide a statement on te Oranga o te Taiao to the relevant planning committee at any time.²⁸ All this enables iwi, hapū and whanau to use their own adaptation planning to influence other statutory planning documents.



Coastal erosion at Clifton

A spotlight on the Ngā Rauru Kiitahi climate change strategy

This climate change strategy begins with a whakatauaakii “Ka mate kāinga tahi, ka ora kāinga rua” which can be roughly translated to mean “when place of abode retires, another as prepared, emerges”. It embodies concepts such as preparedness, agility, resilience and forward thinking.²⁹ The strategy covers a wide range of topics including climate risk, impacts on Ngā Rauru Kiitahi iwi, biodiversity, food security, water, managed retreat, energy, infrastructure, whenua and hauora. The core underlying principle is “achieving *balance within us, among us and with the environment as an extension of who we are.*”³⁰ The strategy’s managed retreat section includes a range of actions such as:

- Developing and implementing a detailed managed retreat plan
- Developing marae strategy and guidelines appropriate to the specific locations, including flood protection, relocation and establishing alternative power
- Investigating suitable land for relocation
- Exploring the history of potential new sites through a cultural investigation
- Identifying funding options to cover the costs of relocating and re-establishing ecosystems in the new community locations³¹
- Developing the capacity of the iwi to understand the complexities of managed retreat and effectively participate in national and local managed retreat forums.³²

7.5 Overall assessment

The Climate Change Response Act requires the preparation of a national adaptation plan in response to each six yearly national climate change assessment. Local authorities must have regard to it when preparing RMA plans. The new national planning framework under the NBEB must not be inconsistent with it.³³ However, there is currently no statutory provision for regional and local adaptation planning in Aotearoa. The LGA provides local authorities a broad framework of consultation principles and decision-making requirements, but there is no explicit provision for implementation, including funding.

There is also the issue of how well a DAPP planning approach will fit into the three-yearly council electoral cycle and preparation of long term plans (with their 10 year time horizon). However, if the triggers in the DAPP are set well in advance, long term plans could include funding provision for whatever pathway is to be adopted.

The new regional spatial strategies under the SPB should provide a spatial framework for adaptation planning. Statutory planning under the RMA (and NBEB) provides a vehicle for implementing parts of an adaptation plan, such as through providing a policy and rule framework for land use, but does not comprise adaptation planning in itself. The RMA and proposed NBEB provide several “hooks” for Māori adaptation planning to influence the statutory plans, but such linkages are not as strong under the LGA.

Statute or Policy	Effect
Climate Change Response Act	The Minister must prepare a national adaptation plan in response to the six-yearly national climate change risk assessment.
Local Government Act	Provides consultation principles and decision-making requirements for councils. Councils must prepare long term plans (time frame of at least 10 years) incorporating an infrastructure strategy (time frame of at least 30 years) and financial strategy. <i>Limitation:</i> No explicit framework for the implementation of DAPP plans.
Resource Management Act	The NZCPS provides a high level policy framework for managed retreat. Councils must prepare regional policy statements, regional plans and district plans which have at least a 10 year time horizon. When preparing plans councils must <i>take into account</i> relevant iwi planning documents lodged with them. Local authorities must have regard to the national adaptation plan when preparing regional and district plans under the RMA. <i>Limitation:</i> No explicit provision for development or implementation of adaptation plans.
National and Built Environment Bill	The NPF must not be inconsistent with the national adaptation plan. The first generation will likely incorporate the high level policy guidance in the NZCPS. Regional planning committees must prepare natural and built environment plans which have at least a 10 year time horizon. The Mana Whakahone a Rohe must record the agreement of the parties about how they will work together “on matters relating to climate change adaptation and natural hazards”. A regional planning committee must <i>have particular regard to</i> any relevant planning document recognised by an iwi authority which could include a tribal climate adaptation strategy or plan. An iwi or hapū may provide a statement on te Oranga o te Taiao to the relevant planning committee at any time.
Spatial Planning Bill	Regional spatial strategies must provide strategic direction on areas subject to significant natural hazard risks and measures for reducing those risks and increasing resilience so can provide a strategic planning approach to responding to natural hazards.

Figure 6 Summary of statutory provisions for adaptation planning

Endnotes

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- 29 Te Kaahui o Rauru and the Ministry for the Environment, 2021, Ka mate kaainga tahi, ka ora kaainga rua: the Ngaa Rauru Kaitahi climate change strategy, at <https://environment.govt.nz/assets/publications/ngaa-rauru-kiitahi-climate-change-strategy.pdf>, at 1
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- 31 Te Kaahui o Rauru and the Ministry for the Environment, 2021, Ka mate kaainga tahi, ka ora kaainga rua: the Ngaa Rauru Kaitahi climate change strategy, at <https://environment.govt.nz/assets/publications/ngaa-rauru-kiitahi-climate-change-strategy.pdf>, at 44
- 32 Te Kaahui o Rauru and the Ministry for the Environment, 2021, Ka mate kaainga tahi, ka ora kaainga rua: the Ngaa Rauru Kaitahi climate change strategy, at <https://environment.govt.nz/assets/publications/ngaa-rauru-kiitahi-climate-change-strategy.pdf>, at 45
- 33 Natural and Built Environment Bill 2022, schedule 6, clause 21

8 Rezoning land



Coastal erosion at Haumoana

As part of the relocation process, local authorities may decide to rezone land so that it cannot be occupied for residential purposes in the future. We have already discussed the available statutory powers to rezone land to prevent future development. We now turn our focus on the ability to rezone developed land to prevent residential use from continuing. This raises the issue of the ability to remove what is termed ‘existing use rights’.

The RMA is protective of existing use rights. Section 10 provides that land may be used in a manner that contravenes a rule in a district plan, so long as the use was lawfully established prior to the rule becoming operative (or a proposed plan being notified), and the effects of the use are of a similar character, intensity and scale. This means that it is not currently possible to exclude existing uses in a high hazard zone through changing the zoning in a *district* plan.

However, the protection of existing uses does not apply to rules in a *regional* plan. Under the RMA, regional councils have as a function “the control of the use of land for the purpose of the avoidance or mitigation of natural hazards”.¹ This makes it clear that regional councils do have a role in restricting land use in high hazard zones, and other provisions of the Act enable them to do so through rules in a regional plan.²

That said, such rules are still subject to the section 85 restrictions on rendering land incapable of reasonable use (as discussed in section 6 above), so could potentially be successfully challenged on this basis by existing occupiers in the same way that future developers can challenge restrictions on future development. This has yet to be tested in the courts.

The equivalent of section 10 of the RMA, which protects existing use rights, is carried over in clause 26(1) of the NBEB. It applies to plan rules within the jurisdiction of the territorial authority (so those contained in the former district plans). However, a new requirement (clause 26(2)) has been added which requires an existing land use to comply with a plan rule that gives effect to the NPF as it relates to the “reduction or mitigation of, or adaptation to, the risks associated with” natural hazards and climate change.

This means that existing uses are no longer protected from plan changes required to reduce climate change risks including changing use. Notably, this only applies if the NPF expressly states that it applies, and it is subject to the reasonable use requirement (as discussed in section 6 above) under clause 139.

A spotlight on downzoning land at Matatā to exclude residential use

In 2018, Whakatāne District Council notified Plan Change 1 to the Whakatāne District Plan. This identified areas on the fanhead of the Awatarariki Stream as high, medium and low risk. The high risk area was proposed to be rezoned from residential to coastal protection. Residential activities would be prohibited from 31 March 2021. However, this would only affect future uses as a change to a district plan could not extinguish existing uses including the occupation of existing houses.

As rules in a regional plan can extinguish existing uses, the District Council lodged a private plan change with the Bay of Plenty Regional Council seeking to amend the Regional Natural Resources Plan in order to prevent residential activities continuing in the high risk area after 31 March 2021. This affected 21 properties. The private plan change request was lodged after the Regional Council declined to initiate the plan change itself.

Plan Change 17 was notified in 2018 and eight submissions and two further submissions were received. These were heard by an Independent Hearings Panel in March 2020, and a decision was notified in April 2020, upholding the plan changes. An Environment Court appeal was then lodged by some residents but an agreement was eventually reached to settle the appeal. In its decision on the proposed settlement, issued in December 2020, the Environment Court found that the proposed plan changes were justified. The changes became operative in March 2021.

Despite reference to the reasonable use provisions in section 85, the Environment Court did not explore their application to the circumstances at Matatā. This was on the basis that the parties had reached a voluntary agreement for the residents to retreat on the basis that they were offered compensation for their properties.³

Statute or policy	Effect
Resource Management Act	Changing rules in a district plan cannot extinguish existing use rights. Changing rules in a regional plan, for the purpose of the avoidance or mitigation of natural hazards, can extinguish existing use rights. <i>Limitation:</i> The plan provisions are still subject to the section 85 qualification regarding reasonable use of land so may not be implementable in practice.
Natural and Built Environment Bill	Rezoning land in a Natural and Built Environment Plan, through a rule within the jurisdiction of a territorial authority, can extinguish existing use rights if it gives effect to the NPF, relates to the “reduction or mitigation of, or adaptation to, the risks associated with” natural hazards and climate change, and the NPF expressly states that it can do so. Rezoning land in a Natural and Built Environment Plan, through a rule within the jurisdiction of a regional council, can extinguish existing use rights if it is for the avoidance or mitigation of natural hazards. <i>Limitation:</i> The above powers are still subject to the reasonable use requirement under clause 139.

Figure 7 Summary of statutory provisions which can extinguish existing use rights in areas subject to natural hazards

Endnotes

- 1 Resource Management Act 1991, section 30(1)(c)(iv)
- 2 See *Awatarariki Residents Inc v Bay of Plenty Regional Council* [2020] NZEnvC 215, at [10]
- 3 *Awatarariki Residents Inc v Bay of Plenty Regional Council* [2020] NZEnvC 215, at [13] and [14]

9 Acquiring properties and providing compensation



Red stickered homes at Piha

Any managed relocation policy will almost certainly require public bodies to voluntarily or compulsorily acquire private properties. We now review legal powers of acquisition as well as provisions relevant to compensation.

9.1 Property acquisition under the Public Works Act

The Public Works Act empowers the Minister of Land Information to acquire any land (including Māori land) required for a Government work and empowers local government to acquire any land required for a local work for which it has financial responsibility.¹ A “Government work” is defined in the Act as:²

a work or an intended work that is to be constructed, undertaken, established, managed, operated, or maintained by or under the control of the Crown or any Minister of the Crown for any public purpose ... even where the purpose of holding or acquiring the land is to ensure that it remains in an undeveloped state.

Clearly this means that the Crown can acquire land under the Act to stop it being developed (ie for conservation purposes). However, the key question is whether the Act enables the Crown to acquire developed land in a high hazard zone in order to revert it back into an undeveloped state by removing buildings and structures. A local work has a similar definition being “a work constructed or intended to be constructed by or under the control of a local authority, or for the time being under the control of a local authority”.³ However this term lacks the specific reference

to acquiring land to either deconstruct existing structures or ensure it remains undeveloped.

The definition of “work” under the Act is very wide and applies to “every use of land” which the Crown or local authority is authorised to “construct, undertake, establish, manage, operate or maintain by or under this Act or any other Act”. This appears to contemplate the public entity building something or operating some works, rather than removing buildings in high risk areas to return land to an undeveloped state.

Such acquisition can be by agreement, or the land can be taken compulsorily. If the land sought for acquisition by agreement is Māori freehold land (and is beneficially owned by more than four persons and is not vested in a trustee), the Māori Land Court deals with the matter on behalf of the owners.⁴ At this point the Te Ture Whenua Māori Act would come into play. This Act sets out in the preamble its underlying purpose, which is to retain Māori land in Māori ownership. This emphasises the complicated issues around whether Māori land should or could be acquired for managed retreat, with the primary objective of the Māori Land Court being to promote and assist in achieving the retention of Māori land ownership.⁵ The preamble states:

And whereas it is desirable to recognise that land is a taonga tuku iho of special significance to Maori people and, for that reason, to promote the retention of that land in the hands of its owners, their whanau, and their hapu, and to protect wahi tapu: and to facilitate the occupation,

development, and utilisation of that land for the benefit of its owners, their whanau, and their hapu:

If general land is to be taken compulsorily, the landowner can object to the Environment Court⁶ with the Court tasked with deciding “whether, in its opinion, it would be fair, sound, and reasonably necessary for achieving the objectives of the Minister or local authority, as the case may require, for the land of the objector to be taken”.⁷

The Public Works Act sets out how compensation is to be determined for land that is taken either voluntarily or compulsorily. It provides a clear starting point that where land is taken “the owner of the land shall be entitled to full compensation”.⁸ This question is then how to value full compensation. The Act provides that the value of the land taken is to be “the amount which the land if sold in the open market by a willing seller to a willing buyer on the specified date [the date the land vests in the public authority] might be expected to realise”.⁹

The obvious problem with applying this method of valuation is that the market value of land when it is acquired for managed retreat may be very low, or even non-existent, due to the land being in a high hazard zone and/or being damaged as a result of a natural hazard. This is the reason why compensation in the case of Matatā and the Christchurch red zone were based on values prior to the hazard occurring (see spotlights below).

A second issue is that the requirement for full compensation does not contemplate other compensation formula which government might seek to apply to managed retreat (as set out in Boston 2023)¹⁰ and which may not amount to “full” compensation. It also does not contemplate more innovative approaches such as acquisition of property and then leaseback to the former owner for a period of time until the risk becomes intolerable (referred to as a ‘climate lease’).¹¹

Another issue with land acquisition under the Public Works Act is the requirement to offer it back to the previous owner (ie the parties who the land was acquired from in the first place) if the land is subsequently disposed of. This is a requirement unless the Chief Executive of Land Information New Zealand (LINZ) considers it “would be impracticable, unreasonable, or unfair to do so” or “there has been a significant change in the character of the land”.¹² There are also rights of first refusal incorporated into many Treaty settlements which might apply depending on when the Crown acquired the land.

A spotlight on Treaty settlement right of first refusal

In the context of Treaty settlement deeds, the right of first refusal is the right of the iwi or hapū concerned to be given the opportunity to purchase land being disposed of by the Crown ahead of any other prospective purchaser. For example, the Ngāi Tahu Claims Settlement Act 1998 provides that the Crown may not dispose of land within the Ngāi Tahu claims area without first notifying Te Rūnanga o Ngāi Tahu and offering to sell the land to the tribe first.¹³ However, this only applies to land that was vested in the Crown when the statute was enacted (1998) so would not apply to land subsequently acquired for the purposes of managed retreat.

It should also be noted here, as discussed in section 8 above, that where a council wishes to downzone a property to exclude existing uses and/or future development, and this renders it incapable of reasonable use, it can be directed by the Environment Court (under the RMA) to acquire the property with agreement from the land owner. In such a case, the provisions of the Public Works Act apply to the acquisition, including the amount of compensation to be paid.



Wharenui, Whakarewarewa

9.2 Property acquisition under the Land Act

With approval of the Minister, the Commissioner of Crown Lands is able to purchase land (including Māori land) for “any government purpose” under the Land Act.¹⁴ “Any government purpose” is not defined but would be broader than a “government work” under the Public Works Act. Land acquisition under the Land Act can only be undertaken on a voluntary basis.

In practice, LINZ needs to obtain approval of the Commissioner before commencing negotiations to purchase any land. To obtain approval, LINZ provides the Commissioner with a detailed ‘submission’ setting out property details, the reasons for the proposed purchase, a valuation of the land, a check of all risks and liabilities associated with it and other relevant information. The Act does not set the basis for the price to be paid for the land, leaving that up to negotiations. It does require the Commissioner to obtain a valuation from a “competent valuer” but does not prescribe a basis for the valuation.¹⁵

Spotlight on the purchase of residential property in Huntly East under the Land Act

The Huntly East Subsidence Policy 1997 provides for the Crown’s purchase of properties which suffer the effects of subsidence caused by the Crown’s mining of the south section of the Huntly East coal mine.¹⁶ The policy requires the Crown to purchase properties that are irreparably damaged at a price based on the current market value as if no subsidence had occurred or was expected to occur. Owners of an affected property can try to sell their property on the market first, but if this is unsuccessful because of public concern about subsidence, then the Crown must purchase the land instead. In accordance with the policy, over 200 houses were purchased by the Crown under the Land Act – mostly in the 1990s and early 2000s when land subsidence was most active.

Land acquired for managed relocation under the Land Act could be set apart as reserve land. The Act includes provision for Crown land to be set apart as reserve if that outcome is desirable in the public interest¹⁷ and provides that land held for State Housing under the Housing Act 1955 can be made reserve land.¹⁸

The power to acquire land may also have utility for broader climate adaptation purposes including providing room for indigenous species and habitats to adapt. Many of our endemic species are already at risk from

climate change related effects and may require new habitats in order to adapt. In future, the Crown may see value in acquiring strategically located land which could be restored as biodiversity retreats for species affected by climate change, or as ecological corridors to enable the movement of those species to more suitable habitats. Such land could be acquired under the Public Works Act or Land Act.



Dune vegetation, Waikawau Bay

9.3 Property acquisition under the Local Government Act

Local authorities can acquire land from willing sellers under their general powers provided in the LGA. Under section 12(2) of the Act, local authorities have “full capacity to carry on or undertake any activity or business, do any act, or enter into any transaction” which would include land purchase. These powers must be exercised within their broad purpose which is “to promote the social, economic, environmental and cultural well-being of communities in the present and for the future”.¹⁹

All local authority decisions must be made in accordance with procedures set out under the Act. These include identifying all reasonable practicable options and assessing the options in terms of advantages and disadvantages. Where it involves a significant decision in relation to land or a body of water (as in the case of managed retreat) councils must “take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites, waahi tapu, valued flora and fauna, and other taonga”.²⁰ The views and preferences of interested and affected persons must be considered.²¹ In addition, Māori must be given the opportunity to contribute to the decision-making process.²²

A spotlight on the purchase of residential property at Matatā under the Local Government Act

When exploring options to purchase properties located in the high risk area in Matatā, the Whakatāne District Council decided not to do so under the Public Works Act. A preparatory assessment had concluded that providing property owners “with an opportunity to relocate away from an environment with a high life safety risk” was not a “public work”.²³ This conclusion was apparently based on legal advice the council received to the effect that the Public Works Act could not be used for managed retreat and the subsequent conversion of the land to a public reserve.²⁴

Instead, the Council decided to negotiate with land owners directly using its broad powers under the LGA. Compensation was offered based on independent valuations of current market value that did not account for the impacts of the hazard. Contributions were also made towards legal fees, relocation costs (where the property was the principal place of residence) and any mortgage break fees. The cost of the buyout was shared equally between central government, the Whakatāne District Council and the Bay of Plenty Regional Council.

9.4 Property acquisition under the Urban Development Act

The Urban Development Act provides for land acquisition on a voluntary or compulsory basis. Under the Act, the Minister for Land Information can acquire or take land for a “specified work” if requested by Kāinga Ora. Such taking of land must be in accordance with the Public Works Act provisions.²⁵ However, alternative compensation can be agreed outside the provisions of that Act, so that the property owner receives compensation of “any amount, and in any form”.²⁶

Certain categories of land are protected from acquisition and development under the Act. These categories include:

- Reserves and national parks
- Māori customary land
- Māori reserve land
- Land subject to customary marine title or protected customary rights
- Land forming part of a natural feature that has been declared a legal entity (eg Te Urewera), and Tāmaki Makaurau maunga
- Other categories of Māori land that can only be acquired by agreement²⁷

The purpose of the Urban Development Act, which is to “facilitate urban development”²⁸ along with its orientation towards undertaking integrated urban development projects, presents the main obstacle for using the Act’s provisions to acquire land intolerably exposed to natural hazard.²⁹ For this reason it is more suited to developing new settlements for people who are moving from high hazard areas as discussed in section 10 below.

9.5 Property acquisition under special legislation

In response to the Christchurch earthquakes, the government passed special legislation to enable the acquisition of properties in areas where it was unsafe to rebuild. This took the form of the Canterbury Earthquake Recovery Act 2011 (now repealed) which provided for both voluntary³⁰ and compulsory³¹ acquisition of land. The only requirement was that “the Minister considers that land should be taken in the name of the Crown.”³²

Where land was to be compulsorily acquired, the Act provided that the person who suffered loss was entitled to compensation from the Crown and could make a claim for it. The Minister then determined whether compensation was payable and the amount owing, having regard to current market value and in accordance with the Public Works Act.³³ This has the same problems as noted for the Public Works Act, in section 9 above, in that the current market value after the damage has occurred will be much less than a prior market value.

The Christchurch recovery saw no land compulsorily acquired under the Act. However, the government did make various offers to voluntarily buy-out land in the red zone. These were not based on the then current (2011) market value but on the most recent rating valuation which dated back to 2007. In this way, compensation was not based on current market valuation but on a pre-damage/risk value.

Not all property owners were offered the full 2007 rating value. The government distinguished between different categories of property owners based on type of use and insurance status. The policy to base compensation largely on insurance status was later overturned by the Supreme Court (see spotlight below).

A spotlight on the level of compensation offered to property owners in the Christchurch red zone

After significant earthquakes in 2010 and 2011 which hit the Canterbury region, the government classified land into zones according to the extent of damage. Areas where it was deemed unsafe to rebuild were classified 'red zones'. The government then made various offers of compensation to red zoned property owners in order to acquire their properties on a voluntary basis. The lawfulness of the compensation offered to affected property owners was considered by the Supreme Court in the *Quake Outcasts* case.³⁴

In 2011, owners of insured properties in the Christchurch red zone were offered 100 per cent of the most recent (2007) rating valuation for their entire property, or for the land component only, with the relevant insurances being assigned to the Crown. Owners of insured commercial and industrial properties were offered 100 per cent of the rating value for improvements, but only 50 per cent of the land value, reflecting the lack of EQC insurance cover for land that was not residential. Uninsured property owners were only offered 50 per cent of the 2007 rating value, and for the land only. They were offered

nothing for the value of their houses or other improvements, but the owners were to retain salvage and removal rights. Owners of vacant land were also offered only 50 per cent of the rateable land value.

Owners of uninsured land joined together into a group called the 'Quake Outcasts' to judicially review the lawfulness of the reduced offer. The matter eventually ended up in the Supreme Court. A key issue considered by the Court was whether the government could lawfully base the offers made to property owners on the status of their insurance cover.

In 2015, subsequent to court proceedings being initiated and heard by the High Court and Court of Appeal, the Crown increased its offer to cover the full rateable value of vacant land; the full rateable value of both land and improvements for insured commercial properties, and the full value of the land for uninsured improved properties (but still no compensation for the loss of the building).³⁵

The Supreme Court found that while the insurance status of the properties was not an irrelevant factor in determining the amount of compensation, it should not have been determinative.³⁶ It also found that, given that the main purpose of the Canterbury Earthquake Recovery Act was to provide for the recovery of greater Christchurch communities,³⁷ the need to facilitate the recovery of the red zone communities should have been also considered.³⁸

After the Supreme Court decision, the government offered uninsured homeowners 100 per cent of their land value and 80 per cent of the value of improvements (ie the house) along with "a one-off payment to account for the Court's decision and extra uncertainties and costs".³⁹ So in the end, all property owners received pretty much the full pre-damage rateable value.

9.6 Overall assessment

The Public Works Act provides strong powers for government and councils to compulsorily acquire land as well as to undertake voluntary purchases. What is unclear is whether the Act would apply to the purchase of land to effect managed retreat. In addition, the requirement to base compensation on current market value at the time of property transfer is not well suited to the circumstances of managed relocation. In a climate change context, values will likely be severely reduced by known significant and increasing risks to the property, if there is a market for the property at all at that

stage. Government might also wish to apply different approaches to valuing compensation for managed retreat than that implied by the “full” compensation requirement under the Public Works Act.

Although the Public Works Act enables Māori land to be compulsorily acquired, any use of this power in the context of managed retreat would need to be undertaken with extreme care, given the long history of Māori land dispossession in Aotearoa. In general, any acquisition of Māori land subject to natural hazards would need to be undertaken through a bespoke process, ideally led by the affected iwi, hapū or whanau.

The Land Act provides broader powers for land acquisition which might suit managed relocation. However, the powers can only be exercised by the Commissioner for Crown Lands (and not local authorities) and land can only be acquired on a voluntary basis. The amount of compensation paid is left to negotiations with the property owner but needs to be informed by a valuation.

Local authorities can acquire land on a voluntary basis using their general powers under the LGA. To do so they must follow the decision-making requirements under the Act which include assessing alternatives in light

of interested and affected parties’ preferences and taking into account the relationship of Māori with ancestral land and taonga. There are no additional requirements for the amount of compensation offered.

While the more recent Urban Development Act has strong land acquisition powers, they are designed for creating new urban settlements, not for removing existing settlements due to hazards.

Historically, land has also been acquired under special legislation, a recent example being the offers made to property owners in the Christchurch red zone under the auspices of the Canterbury Earthquake Recovery Act. The Act provided strong powers to acquire land on a compulsory basis as well as voluntarily. Compensation for land compulsorily acquired was to be determined based on current market value. However, these provisions were never brought into force as all property buy-outs were on a voluntary basis.

In sum there is a gap in the legislative framework, which does not provide suitable tools to compulsorily acquire land, or provide a suitable framework for compensation which accounts for the circumstances of managed relocation.



Silt laden rural land after Esk Valley flood (Waka Kotahi)

Statute/Policy	Effect
Public Works Act	Enables compulsory acquisition. Will apply when land is downzoned under the RMA (or NBEB) but only for property acquisition with landowner agreement. <i>Limitations:</i> Act may not apply to managed retreat as unclear whether this would be captured in the definition of “work”. Provisions basing the quantum of compensation on current market value are likely inappropriate for managed retreat.
Te Ture Whenua Māori Act	Seeks to retain Māori land in Māori ownership and enable its utilisation for the benefit of its owners, their whanau, and their hapū .
Land Act	Could apply to managed retreat but only enables the Commissioner of Crown Lands to acquire land, not local authorities. <i>Limitation:</i> Does not authorise compulsory acquisition.
Local Government Act	Local authorities have broad powers to acquire property under the Act but need to comply with a prescribed decision-making process. <i>Limitation:</i> Does not authorise compulsory acquisition.
Urban Development Act	The Minister of Land Information can voluntarily and compulsorily acquire property under the Act. <i>Limitation:</i> Only for the purposes of facilitating urban development, not removing settlements.
Special legislation (Canterbury Earthquake Recovery Act – now repealed)	Gives the Crown very broad powers to voluntarily and compulsorily acquire land which apply to managed retreat. <i>Limitation:</i> Like the Public Works Act, provisions basing the quantum of compensation on current market value are inappropriate for managed retreat (and were not used in practice as all land purchase was voluntary).

Figure 8 Summary of statutory provisions for property acquisition and compensation

Endnotes

- 1 Public Works Act 1981, section 16. Local authorities are also empowered to acquire land required for a local SPV work for which it is the responsible infrastructure authority.
- 2 Public Works Act 1981, section 2
- 3 Public Works Act 1981, section 2
- 4 Public Works Act 1981, section 17(4)
- 5 Tu Ture Whenua Māori Act 1993, section 17(1)
- 6 Public Works Act 1981, section 23(3)
- 7 Public Works Act 1981, section 24(7)(e)
- 8 Public Works Act 1981, section 60(1)
- 9 Public Works Act 1981, section 62(1)(b)
- 10 Boston J, 2023, *Funding managed retreat: Designing a public compensation scheme for private property losses: Policy issues and options*, the Environmental Defence Society, Auckland, chapter 7
- 11 See Storey B, 2017, *Conversion to leasehold as methodology to price sea level rise risk*, Dissertation for a Master of Disaster Risk and Resilience, University of Canterbury
- 12 Public Works Act 1981, section 40
- 13 See Ngāi Tahu Claims Settlement Act 1998, Part 9
- 14 Land Act 1948, section 40(1)
- 15 Land Act 1948, section 40(2)
- 16 Land Information New Zealand, 1997, *Land subsidence policy south section old workings: Huntly East*, Land Information New Zealand, Hamilton
- 17 Land Act 1948, section 167(1)
- 18 Land Act 1948, section 167(1A)
- 19 Local Government Act 2002, section 10(1)(b)
- 20 Local Government Act 2002, section 77
- 21 Local Government Act 2002, section 78(1)
- 22 Local Government Act 2002, section 81(1)
- 23 <https://www.whakatane.govt.nz/residents/awatarariki-managed-retreat-programme/faqs-awatarariki-fanhead-matata-managed-retreat>
- 24 Hanna C J, 2019, *Restraints of change: Limits to 'managed retreats' in Aotearoa New Zealand*, PhD thesis, University of Waikato, at 121
- 25 Urban Development Act 2020, sections 253(1)(d) and 256
- 26 Urban Development Act 2020, section 260
- 27 Urban Development Act 2020, section 17
- 28 Urban Development Act 2020, section 3(1)
- 29 See, for example, Urban Development Act 2020, section 5
- 30 Canterbury Earthquake Recovery Act 2011, section 53
- 31 Canterbury Earthquake Recovery Act 2011, section 54
- 32 Canterbury Earthquake Recovery Act 2011, section 55(1)
- 33 Canterbury Earthquake Recovery Act 2011, section 64
- 34 *Quake Outcasts v Minister for Canterbury Earthquake Recovery and Ors* [2015] NZSC 27
- 35 Canterbury Earthquake Recovery Authority, 2015, *Residential red zone offer recovery plan*, Canterbury Earthquake Recovery Authority, Christchurch, at 3
- 36 *Quake Outcasts v Minister for Canterbury Earthquake Recovery and Ors* [2015] NZSC 27, at [167]
- 37 Canterbury Earthquake Recovery Act 2011, section 3(a)
- 38 *Quake Outcasts v Minister for Canterbury Earthquake Recovery and Ors* [2015] NZSC 27, at [181]
- 39 Wagner N, 2017, *Outcasts case settled*, media release, 5 September

10 Relocation and development of new settlements



New settlement at Hobsonville

The process of relocating people, buildings and infrastructure raises some difficult issues. Providing new settlements for people who have relocated from high risk areas is a similarly difficult process. Major issues include the potential withdrawal of utilities and services, excluding people from occupying properties in hazardous areas, and opening up new places for people to live. These need to be seen within the broader social imperatives of maintaining social cohesion, reducing inequities and ensuring access to justice.

10.1 Withdrawal of services

Managed relocation could play out in a variety of ways. If authorities pursue a voluntary acquisition scheme only, there is a possibility that some people will refuse any offer and decide to stay regardless of the consequences. Such a 'halfway' or 'partial' retreat raises significant issues. Where some members of a community have moved out of an area as part of a managed retreat initiative, but other property owners have decided to stay, councils may wish to withdraw services based on considerations of cost and practicability. Ceasing to maintain services may manifest as deciding not to reinstate them after they have been damaged, stopping the supply of services and/or physically removing them.

A decision to significantly alter the intended level of service provision for any "significant activity" undertaken by or on behalf of a local authority cannot be made under the LGA unless it was explicitly provided for in its long term plan and was included in a consultation document on the

proposed plan. This includes a decision to "commence or cease any such activity".¹ So long as the intention to reduce or withdraw a service is included in the plan the provisions discussed below would apply.

10.1.1 Coastal protection/stop banks

There is no general duty on territorial authorities to protect properties from coastal erosion,² nor to maintain existing coastal protection works. In addition, councils can clearly not be required to provide new coastal protection works as they would need to be consented under the RMA, and consent might be withheld. However, in reaching a decision not to maintain protection works or protect properties, councils must comply with the decision-making criteria in the LGA. They would also need to assess what coastal hazard response would be the best practicable option to promote the sustainable management of the area's natural and physical resources under the RMA.³

Many stop banks and flood protection works are managed by regional councils under the Soil Conservation and Rivers Control Act 1941. Amongst other things, the Act is designed to prevent "damage by floods".⁴ Section 148 provides that no council shall be liable for property damage caused by the accidental overflowing of a watercourse or sudden breaking of a bank, dam, sluice or reservoir maintained by the council, so long as the council is not negligent. However, if a council receives notice from a property owner/occupier that such works are "weak, and requiring it to strengthen or repair the same" and the council fails to do so within reasonable time, then it will be liable for the costs of damages sustained as a result of that

failure.⁵ This effectively requires regional councils to maintain existing flood protection works even when this is not the most cost effective or long term sustainable option. However, it falls short of requiring councils to upgrade flood protection works or to build new protective works in response to climate change impacts.

10.1.2 Roading

Under section 319(1)(a) of the Local Government Act 1974, councils have the power to “construct, upgrade, and repair all roads with such materials and in such manner as the council thinks fit”. Importantly, simply having the *power* to carry out such works does not mean that councils have an *obligation* to do so, particularly if climate change impacts mean that it is no longer financially and/or practically feasible. Councils could decide to reduce maintenance of roads, or not reinstate a road damaged by a natural event such as flooding or coastal erosion, so long as the decision-making processes in the LGA are followed and the decision is reasonable in the circumstances. This appears to be the case, even if lack of maintenance/repairs affects access to some properties.

10.1.3 Water services

There are much stronger controls on the closure of water services (drinking water supply, sewage disposal and stormwater drainage) by councils based on public health concerns. The starting point is section 130(2) of the LGA which states that, where a local authority provides water services to communities within its district, it “must continue to provide water services” and maintain its capacity to do so. However, the Act does make provision for councils to close down a small water service “that it is no longer appropriate to maintain” but only if 200 or less residents are supplied and procedural requirements are met including a binding referendum.⁶ Before closure, councils must also review the likely effect on public health and the costs and adequacy of providing an alternative service.⁷

These provisions would likely make it difficult (but not impossible) for councils to withdraw water services from remaining residents in the event of a “partial” managed relocation. However, a similar end point could possibly be achieved through user pays charging where the full costs of providing services to a small number of remaining households was charged to the users. Alternatively targeted rates could be set to cover the cost of providing water services to the affected area.⁸

Whether to provide services to those wanting to rebuild their homes in a hazard zone is a further issue. Under section 39 of the Health Act it is not lawful to rebuild a house unless there is an adequate and convenient supply of potable water, suitable provision for the disposal of refuse water and sufficient sanitary conveniences.

Spotlight on provision of services to Christchurch red zone properties

After the 2010-2011 Canterbury earthquakes, and the government offer to buy out properties in the red-zoned areas, most of the 6,000 or so original residents accepted the offer and moved out. However, some remained, refusing to accept the Crown’s offer. The Christchurch City Council concluded that it was legally obligated to provide services to the remaining homes. In 2012, the Council estimated that it would cost over \$16,000 per household to retain services to properties in the red zone compared to around \$600 per property pre-earthquake. This assumed a 79 per cent occupancy rate with costs increasing significantly as more people moved out of the zone.⁹ In 2014, the council reported that more than \$3 million was spent to maintain infrastructure to red-zoned homes.¹⁰

By 2017 there were still 44 occupied properties left in the flat red zoned areas. The council started using large suction tankers to regularly suck sewage out of manholes, and truck it to the city’s wastewater treatment plant, because the earthquake had damaged the water and sewerage network and broken essential pipes. These measures came at a cost of nearly \$500,000 a year and averaged out at around \$11,000 per property. The Crown covered half the cost.¹¹ Water was supplied through temporary pipes run above-ground.

In 2018, the council offered to buy out five red-zoned properties when the temporary above-ground water pipes were reaching the end of their useful life. This was considered cheaper than installing new services, but only one property owner accepted.¹² For another isolated property, the Council spent \$74,000 to connect the house with permanent water and sewage services. By 2021, the Council had provided new water and wastewater services to nine properties in the Avon river red-zone at a cost of \$371,450.¹³

Overall, the requirement to continue to provide water services to those that have chosen to remain in a hazard zone has been very costly for the Council.

10.2 Relocating people away from risky locations

People can be moved from risky properties under several statutes. During a state of emergency, the Civil Defence Emergency Management Act 2002 provides strong powers including, where “necessary for the preservation of human life”, the ability to direct the evacuation of premises or places and the exclusion of persons or vehicles from them.¹⁴ This power can be used to require people to leave their homes when there is a life-threatening risk, but only while a state of emergency is in force. It is therefore not applicable to the circumstances associated with managed relocation.

In terms of risk management, some provisions in the Building Act are also relevant. In the first instance, a territorial authority is required to adopt a policy on dangerous and insanitary buildings within its district.¹⁵ This could include how the council will approach such buildings in a high hazard zone and after damage has occurred due to a natural hazard event. If a territorial authority is satisfied that a building is a “dangerous, affected, or insanitary building” it can restrict entry to it.¹⁶

During an emergency, the Building Act also provides that areas can be given a ‘designation’ on the basis of emergency management.¹⁷ This can only be for a range of “necessary or desirable” public interest matters including for the protection of people from injury or death; the protection of buildings or critical infrastructure from damage or disruption to their use; and the protection of people or buildings from the effects of the insanitary condition of a building.¹⁸ People can then be directed to evacuate a building.¹⁹ The focus of these powers is to protect human life and safety rather than buildings per se.²⁰

Similarly, under the Health Act, a council can take action when a building is “by reason of its situation or unsanitary condition, likely to cause injury to the health of any persons therein, or otherwise unfit for human habitation”. The Act requires the owner to make repairs to address the situation, and failing this, prohibits the use of the building for human occupation. The Director-General of Health can also issue such an order.²¹ This could be done in the situation where a house in a hazard zone is damaged and/or services to it interrupted. It would require residents to leave their homes, at least until they were made safe to inhabit.

All these powers can only be used in an emergency or where there is risk to the life or health of people. They are designed to be short term measures, in the heat of the emergency, or to address homes that are no longer habitable. In this way, they are inappropriate for a pre-emptive management retreat exercise.

10.3 Settling people in new locations

Two main pieces of legislation potentially enable the acquisition of land and development of new settlements for people who have been uprooted as a result of managed retreat; the Urban Development Act and the Land Act.

The purpose of the Urban Development Act is “to facilitate urban development that contributes to sustainable, inclusive, and thriving communities”.²² To this end it is compatible with resettling people being moved away from areas at high risk from natural hazards. The urban development projects provided for under the Act are to be undertaken by the government agency Kāinga Ora.

“Urban development” has a wide definition which includes development of housing, the development and renewal of urban environments, and the “development of related commercial, industrial, community, or other amenities, infrastructure, facilities, services or works.”²³

Kāinga Ora can apply for an urban development project to become a “special development project”. This can only be declared after following a prescribed process and obtaining an Order in Council recommendation from the joint Ministers. When assessing whether a project should become a special development project, Kāinga Ora must identify its constraints and opportunities drawing on information on natural hazards, iwi planning documents and climate change reports prepared under the Climate Change Response Act, amongst other things.²⁴

Kāinga Ora must undertake a declared special development project in accordance with the development plan prepared for the surrounding area. The development plan must include a structure plan and identify funding sources such as development contributions, targeted rates, infrastructure and service charges and administrative charges. It must also identify any participation arrangements or redress set out under Treaty settlements and adequately provide for the settlement of future Treaty claims.²⁵ It must avoid or mitigate risks from natural hazards.²⁶

The development plan can override any provisions in a regional or district plan. A draft is publicly notified and any person may make a submission on it, with submissions heard by an independent hearings panel. The Minister for Land Information then approves the development plan, after which Kāinga Ora is given a wide range of powers and functions, including being the consent authority for resource management applications, and taking the place of the territorial authority when considering designations.

It may also exercise infrastructure (including roading and water-related infrastructure) and funding powers.

As described earlier, the Urban Development Act also provides for land acquisition. Once the land is acquired, Kāinga Ora can grant a lease, tenancy, licence or easement in relation to the land,²⁷ may transfer it to a developer (but this must be subject to a development agreement),²⁸ or may dispose of land.²⁹ That said, there are some limits on such disposal. Former Māori land which is proposed to be disposed from public ownership must first be offered back first to its former Māori owners. Where the land is potentially needed for future te Tiriti settlements Kāinga Ora must consult with the Minister for Treaty of Waitangi Negotiations prior to disposal.³⁰ If applicable, it must also first be offered back to the Treaty post-settlement governance entities that hold a right of first or second refusal.

Taken overall, the Urban Development Act provides a comprehensive set of powers to potentially enable the integrated provision of new urban settlements for those who are anticipatorily relocating away from hazard areas. They also provide protection for Māori land and land needed for te Tiriti settlement purposes.

The Land Act also provides all the authority necessary to prepare a strategically purchased piece of land for settlement (although the land itself can only be acquired voluntarily as discussed above). Although somewhat dated in their intention, the current provisions of the Act contemplate development for a complete community, including enabling the Commissioner to carry out the surveying, roading, subdivision, drainage, reclamation, fencing, clearing and grassing of land, the erection of buildings, the provision of power and water and other works required to make the land fit for settlement.³¹ Further, the job of land preparation can be shared with any person, local authority or government department,³² foreshadowing the possibility of private-public housing ventures.

10.4 Overall assessment

There is no obligation on councils to protect private property from coastal erosion or to maintain existing coastal protection works. The situation is somewhat different for flood protection works managed under the Soil Conservation and Rivers Control Act where the regional council is effectively required to keep them under good repair or be liable for property damage.

With the exception of water services, it is possible for councils to withdraw most services (including roading), so long as they follow the correct decision-making process. Water services are more difficult to withdraw, which is understandable given the public health and welfare implications of their removal.

There are strong statutory provisions for moving people away from unsafe homes and buildings, particularly in the context of an emergency. However, they are designed to be short term measures and are not well configured for managed relocation, especially if it is pre-emptive.

The Urban Development Act provides a set of powerful tools to undertake urban development in an integrated manner. These tools could be deployed to provide new settlements for those relocating away from hazardous areas. Such development could also potentially be undertaken under the Land Act, although its provisions are dated and not as well configured for this purpose.



Flooding of Esk Valley substation (Waka Kotahi)

Statute or policy	Effect
Local Government Act (2002)	All decisions to significantly alter the intended level of service for a significant activity need to be explicitly provided for in a council's long term plan and be consulted on. Where a council currently supplies water services to its communities it must continue to do so (unless it services 200 or less residents and a set of robust criteria are met).
Soil Conservation and Rivers Control Act	Councils must effectively maintain existing flood control works or be liable for resultant property damage
Local Government Act (1974)	Councils have the <i>power</i> to construct, upgrade and repair roads but have no obligation to do so.
Resource Management Act	There is no duty on councils to protect properties from coastal erosion or to maintain existing coastal protection works.
Civil Defence Emergency Management Act	People can be directed to evacuate premises or places where necessary for the preservation of human life during a state of emergency.
Building Act	Councils must adopt a policy on dangerous and insanitary buildings within their districts. Councils can prevent entry into buildings that are considered dangerous or insanitary. This is primarily to protect human life and safety rather than the buildings themselves.
Health Act	Councils and the Director-General of Health can require repairs to be undertaken on buildings unfit for human habitation, and if they are not done, prohibit use of the building for residential use.
Urban Development Act	Land can be acquired, developed and disposed of to facilitate new urban settlements. Kāinga Ora can manage the development process (including the provision of infrastructure and funding), standing in the shoes of the council, and subject to a development plan
Land Act	Land can be voluntarily acquired and development by LINZ but the provisions of the Act are somewhat outdated and not entirely fit for purpose.

Figure 9 Summary of statutory provisions for relocation and development of new settlements

Endnotes

1 Local Government Act 2002, section 97

2 *Waihi Beach Protection Society v Western Bay of Plenty District Council*, A27/2002, Environment Court

3 *Waihi Beach Protection Society v Western Bay of Plenty District Council*, A27/2002, Environment Court

4 Soil Conservation and Rivers Control Act 1941, section 10

5 Soil Conservation and Rivers Control Act 1941, section 148

6 Local Government Act 2002, section 131

7 Local Government Act 2002, section 134

8 Local Government (Rating) Act 2002, section 19

9 *Quake Outcasts v Minister for Canterbury Earthquake Recovery and Ors* [2015] NZSC 27, at [75]

10 Hayward M, 2019, 'Christchurch council spends \$74k connecting water, sewerage to lone red one house', *Stuff*, 22 February

11 Mitchell C, 2017, "'Costly and inefficient' makeshift services for lonely red-zoned neighbourhoods', *Stuff*, 6 February

12 Christchurch City Council, 2018, 'Council offers to buy five red zone properties', *Newsline*, 12 March; Gates C and A Williams, 2021, 'Christchurch red zone stayers are now living in "paradise"', *Stuff*, 22 February

13 Gates C and A Williams, 2021, 'Christchurch red zone stayers are now living in "paradise"', *Stuff*, 22 February

14 Civil Defence Emergency Management Act 2002, section 86

15 Building Act 2004, section 131

16 Building Act 2004, section 124

17 Building Act 2004, section 133BD

18 Building Act 2004, section 133BD(1)

19 Building Act 2004, section 133BR

20 See Building Act 2004, section 133BN

21 Health Act 1956, section 42

22 Urban Development Act 2020, section 3(1)

23 Urban Development Act 2020, section 10(1)

24 Urban Development Act 2020, section 32

25 Urban Development Act 2020, section 72(4)

26 Urban Development Act 2020, section 57(b)(iii)

27 Urban Development Act 2020, section 263

28 Urban Development Act 2020, section 264

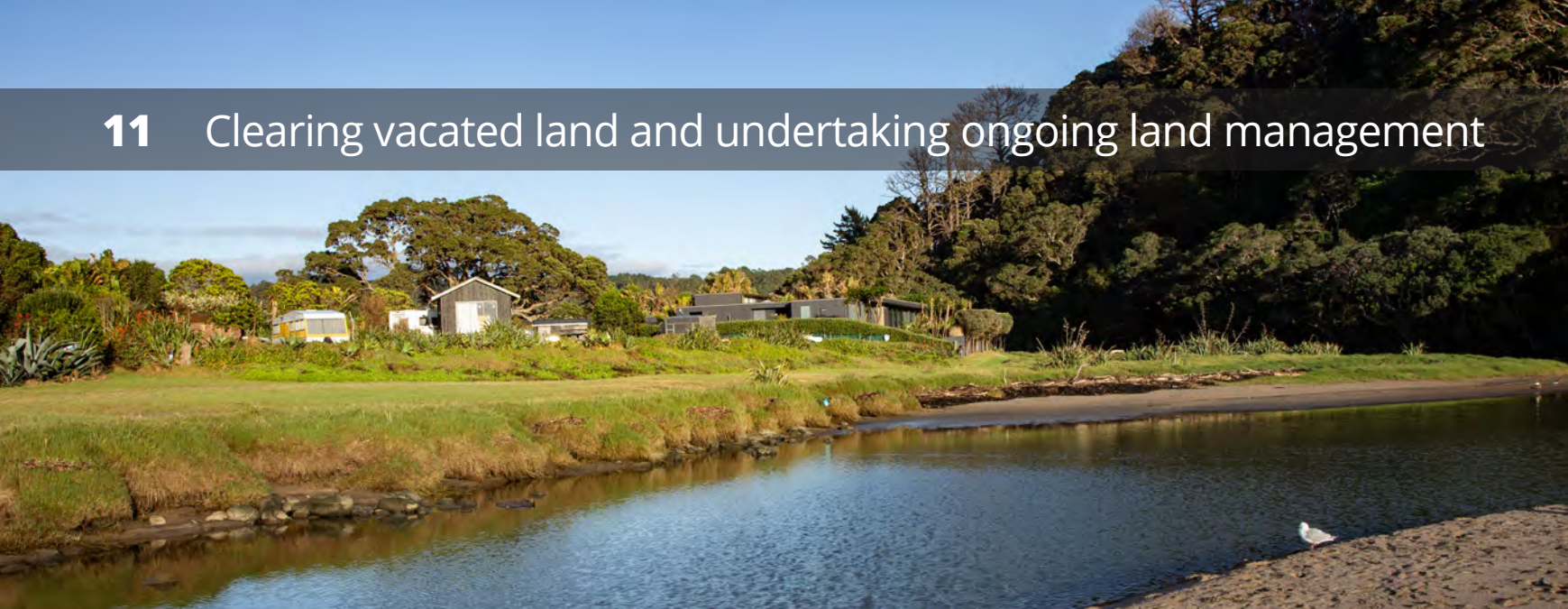
29 Urban Development Act 2020, sections 274 and 275

30 Urban Development Act 2020, section 271

31 Land Act 1948, section 44(1)

32 Land Act 1948, section 45

11 Clearing vacated land and undertaking ongoing land management



Esplanade reserve at Hot Water beach

Once people have moved from a hazardous area, the land will need to be cleared and arrangements made for its ongoing management. This brings into play several pieces of legislation.

11.1 Demolition

Ideally, buildings and infrastructure left in vacated areas which are no longer required, would be repurposed for other uses rather than being disposed of in landfill. However, there is currently no legal requirement for this to happen. Demolition is included in the definition of building work under the Building Act and therefore a building consent is required to carry out demolition work.¹ This should help ensure a safe demolition process. The obligation to undertake demolition and rehabilitation of the land would need to be clearly specified when the land changes ownership.

11.2 Road stopping

There is also the issue of whether roads in the hazardous area should be 'stopped' to enable the land to be incorporated into a new (and potentially more environmentally sensitive) management regime. 'Stopping' a road is the process by which the legal status of a road (which can exist even if a roadway has not been created, such as with 'paper roads') is removed with the land reverting to its underlying owner, typically the territorial authority or the Crown. The process is provided for in the Local Government Act 1974 which states that councils have the power to stop or close roads² subject to specific requirements. Notably, a road cannot be stopped in a rural area without the prior consent of the Minister of Land Information.³

The stopping of roads needs to go through a set procedure specified in Schedule 10 to the Act. To proceed with a stopping, the council needs to prepare an explanation of the reasons why the road is proposed to be stopped and the purpose to which the land will be put. This is then open for public objections, and if any are lodged, the matter is determined by the Environment Court.

There is no decision-making criteria in the Act for the Court to follow when deciding on a road stopping application but some principles have evolved via case law. The Environment Court has noted that "the lack of statutory direction means that the court may have regard to a wide range of relevant factors, although a central issue is whether or not the roads to be closed are needed for public use".⁴ The Court has also emphasised that "Roads are vested in local authorities for the primary purpose of providing public access and it is only when the roads in question are not needed for that purpose that they ought to be stopped".⁵ This means the stopping of roads within vacated hazards areas are only likely to be confirmed by the Environment Court if they no longer provide access for any parties.

11.3 Reserve land

The cleared land could be managed under various pieces of legislation. This includes the Reserves Act which provides for the "preservation and management for the benefit and enjoyment of the public, areas of New Zealand possessing" recreational use or potential; wildlife; indigenous flora or fauna; environmental and landscape amenity or interest; or a

range of other values.⁶ Reserves can be classified for a range of purposes including as recreation, historic, scenic, nature, scientific, government purpose and local purpose.⁷ They can be owned and managed by central and local government or other “trustees” including potentially iwi/hapū. Importantly, reserves do not include as a purpose rehabilitation or managed realignment/managed retreat. This could be usefully added to the legislation.

11.4 Conservation land

Another possibility is for the land to be brought under the Conservation Act which provides for the management of land by DOC for “conservation purposes”⁸ with “conservation” defined as meaning “the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options for future generations”.⁹

11.5 Land Act and Treaty settlement landbank

The land could also be managed under the Land Act through which LINZ currently manages unallocated Crown Land. However, the Land Act lacks a purpose or principles, so provides little direction on when and why land should be acquired and how it should be managed.¹⁰

LINZ also manages land in the Treaty Settlement Landbank and vacated land could be transferred into this landbank for potential use in future settlements (if suitable). However, the landbank is an interim process set up to ensure that Crown-owned land of potential value in future Treaty settlements is retained for use as commercial redress. Once all settlements are complete the landbank will be decommissioned. Any residual land remaining within it will then be sold on the open market and this category of Crown land administered under the Land Act will no longer be functional.



Red zoned property at Piha

A spotlight on management of land in the Christchurch red zone under the Land Act

After the 2010/2011 Christchurch earthquakes the Crown purchased almost 8,000 properties located in the areas worst affected. In 2015, LINZ took over responsibility from the Canterbury Earthquake Recovery Authority for clearing and managing this ‘red zone’ land. Since then, it has co-ordinated the demolition of about 300 houses, cleared and grassed thousands of properties, and has been responsible for keeping 7,700 properties safe and secure.

LINZ has managed the residential red zone by applying an interim land management approach which preserves future use options for the land. LINZ’s key priorities for maintenance activities include managing hazards to prevent harm; maintaining amenity and ecological values; managing and maintaining private property rights; and pest management.

In accordance with a 2019 Global Settlement Agreement, the ownership and management of Crown-owned red zone land is being progressively transferred from the Crown to Christchurch City Council. The agreement finalises the remaining costs and responsibilities for the earthquake recovery and regeneration. As part of the agreement, LINZ has undertaken a large scale title re-configuration and review of property interests.

11.6 New Zealand Coastal Policy Statement restoration policy

When providing a policy and rule framework for land management under the RMA, the NZPCS provides strong direction on the management of land within the coastal environment for restoration purposes. Policy 14 addresses restoration of natural character which needs to be promoted by councils in plans. This might include identifying areas and opportunities for restoration and rehabilitation, providing policies, rules and other methods, and where practicable imposing restoration or rehabilitation conditions on resource consents.

11.7 Overall assessment

Land can be cleared and rehabilitated under various statutes. The Building Act controls demolition, and the roads can be stopped under the Local Government Act 1974 provided they are no longer needed for access. The NZCPS provides a framework for the restoration of coastal land.

The cleared land could be managed by councils and/or other entities such as iwi/hapū under the Reserves Act (although there is no specific reserve category for restoration or managed retreat/realignment) or by DOC under the Conservation Act. Land could also be placed in the Treaty Settlement Landbank in the interim. It would be useful to have a specific category of land, perhaps under the Reserves Act, that is focused on restoration and rehabilitation of natural ecosystems.

Statute or policy	Effect
Building Act	Manages building demolition through the requirement to obtain a building consent.
Local Government Act (1974)	Enables roads to be stopped but, in practice, only when they are no longer required for public access.
Reserves Act	Provides for the classification and management of reserve land “for the benefit and enjoyment of the public” by a range of parties which could include iwi/hapū entities. <i>Limitation:</i> Does not include a reserve that has as its purpose rehabilitation or managed realignment/managed relocation.
Conservation Act	Provides for the management of conservation land for conservation purposes by DOC.
Land Act	Provides for land management by LINZ. <i>Limitation:</i> Has no purposes or principles to guide management decision-making.
Resource Management Act (New Zealand Coastal Policy Statement)	Unlike other statutory provisions, provides for the restoration and rehabilitation of natural character. <i>Limitation:</i> Only applies in the coastal environment and not throughout the rest of Aotearoa.

Figure 10 Summary of statutory provisions for clearance and ongoing management of land

Endnotes

1

Building Act 2004, sections 40 and 127

2

Local Government Act 1974, section 319(1)(h)

3

Local Government Act 1974, section 342(1)(a)

4

Clutha District Council v Vreugdenhil & Ors [2021] NZEnvC 183, at [30]

5

Re New Plymouth District Council [2011] NZEnvC 88, at [16]

6

Reserves Act 1977, section 3(1)

7

Reserves Act 1977, Part 3 Classification and management of reserves

8

Conservation Act 1987, sections 7, 8 and 17A

9

Conservation Act 1987, section 2

10

Schlaepfer S and R Peart, 2023, *Managing crown land: A review of the Land Act 1948*, Environmental Defence Society, Auckland

12 Weaknesses and gaps in current law



Bream Bay beach accessway (Tom Fitzgerald)

In this section we draw conclusions from our analysis in previous chapters in order to identify issues with the current legal and statutory framework for management retreat which may need to be addressed when designing the Climate Adaptation Act. They are:

1. Tikanga is the first law of Aotearoa. It provides key underlying principles which could usefully underpin climate adaptation policy and law.
2. Local authorities, specifically territorial authorities, could potentially be liable in common law negligence for granting building and resource consents for development in high hazard zones without due diligence. This potential liability could be reduced by statute on public policy grounds.
3. There is a long history of dispossession of Māori land in Aotearoa that forms the backdrop to any managed retreat policy. Māori currently own very little land which can make finding suitable sites for managed retreat problematic. Government assistance in securing new safe locations may be required.
4. Although freehold title in land is strongly protected in law, there is no general statutory protection against the taking of land for public purposes, although fair compensation will generally be expected.
5. The Treaty principles of partnership and active protection require the Crown to actively support Māori in adapting to climate risks including the managed retreat of marae.
6. Any managed retreat policy must honour fundamental human rights including the right to life, the right not to be subjected to degrading treatment, and the right to natural justice.
7. Although there is a robust framework for the preparation and communication of a regular national climate risk assessment, by an independent agency, there is not similar rigour at a regional or local level. Under current law, outside the coastal environment, there is no obligation on any agency to regularly collect and make available natural hazard and climate risk information.
8. The current legal framework is not well configured to prevent development in hazard zones. Only the Building Act can be relied on to achieve this through the refusal of building consents, but only when the safety of people is at stake.
9. Councils can refuse to grant subdivision consent under the RMA when there is a significant risk from natural hazards, but they are not required to do so

10. It will usually not be possible to downzone land in a high hazard zone, to exclude development, unless the council offers to purchase the property at market value and the landowner agrees.
11. The NZCPS provides some clear directives on avoiding redevelopment and land use change in coastal hazard areas. However, there is no similar direction for how councils are to address natural hazards outside the coastal environment.
12. The NPS-UD appears poorly configured to avoid development in high hazard zones. Although it provides for natural hazards as qualifying matters, the regime effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks.
13. Although the Climate Change Response Act requires the preparation of a national adaptation plan, there is currently no specific statutory provision for regional and local adaptation planning. Councils can choose to undertake such planning as part of their broad capacities under the LGA but there is no *explicit* provision for implementation including assigning responsibilities and securing funding.
14. No legislation is well configured for acquiring land exposed to hazard in circumstances of managed retreat. The Public Works Act and Urban Development Act are likely unsuitable. The Land Act (through the Commissioner of Crown Lands) or the LGA (through local authorities) could enable a mechanism for voluntary purchase, but neither would provide a suitable framework for compensation.
15. There is no obligation on councils to protect private property from coastal erosion or to maintain existing coastal protection works. However regional councils may need to maintain flood protection works or be liable for the resultant damage.
16. With the exception of water services, it is possible for councils to withdraw most services (including roading) from a site facing managed retreat, so long as a proper decision-making process has been undertaken.
17. In the context of an emergency, there are strong statutory provisions for moving people away from unsafe homes and buildings. However, they are designed to be short term measures and are unsuitable for managed retreat, especially if it is pre-emptive.
18. The Urban Development Act provides a set of powerful tools to undertake urban development in an integrated manner to provide new settlements for those who need to retreat from areas exposed to natural hazards. Such development could also potentially be undertaken under the Land Act, although its provisions are dated and not as well configured for this purpose.
19. The cleared land could be managed by councils and/or other entities such as iwi/hapū under the Reserves Act or by DOC under the Conservation Act. Land could also be placed in the Treaty Settlement Landbank. There is currently no specific category of land under the Reserves Act that is focused on restoration and rehabilitation of natural ecosystems.

Clearly that there are a number of gaps in the statutory framework for managed retreat. In Working Paper 3 we will be exploring options to fill them.

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Aotearoa New Zealand's Climate Change Adaptation Act:
Building a Durable Future

OPTIONS AND MODELS FOR MANAGED RELOCATION POLICY

Working Paper 3

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Table of contents

Executive summary	vii	6 Relocating and developing new settlements	47
1 Introduction	1	6.1 Removal of properties and infrastructure	47
1.1 Shifting political context	2	6.2 Supporting people in transit	48
1.2 Methodology and structure of working paper	2	6.3 Development of new settlements	48
		6.4 Management agency	49
PART 1: OPTIONS FOR REFORM		7 Post-relocation land management	51
2 Identifying, assessing and communicating risk	5	7.1 Land status	51
2.1 Geographic focus	6	7.2 Governance/management	52
2.2 Methodology	7	8 Models for managed retreat policy	55
2.3 Process	10	8.1 Model 1: Comprehensive nationally-driven approach	55
2.4 Communication	11	8.2 Model 2: Decentralised community-led approach	59
2.5 Timing and frequency	12		
2.6 Responsible agency and funding	13	PART 2: INTERNATIONAL ADAPTATION MODELS	
2.7 Legislative home	14	9 Summary of international models	63
3 Preventing development in risk prone areas	15	9.1 Room for the River programme, the Netherlands	63
3.1 National direction	17	9.2 Blue Acres programme, New Jersey	64
3.2 Regional level	18	9.3 Managed realignment, Medmerry, Chichester	65
3.3 District level	18	9.4 Relocation of Grantham, Queensland	65
4 Undertaking adaptation planning	19	9.5 Buy-back schemes in NSW and Queensland	66
4.1 Adaptation planning for Māori communities	20	9.6 Efforts to relocate Shishmaref, Alaska	67
4.2 Adaptation planning framework	21	9.7 Key themes from international case studies	67
4.3 Initiation of planning process	24	9.7.1 Funding and buy-backs	67
4.4 Governance and plan-making body	25	9.7.2 Governance	67
4.5 Technical support	27	9.7.3 Community engagement	68
4.6 Resourcing	28	9.7.4 Social support	68
4.7 Status of adaptation plans	33	9.7.5 Nature-based solutions	68
5 Compensating and acquiring properties	37	9.7.6 Scaleability	68
5.1 Voluntary acquisition	39	10 Conclusions	71
5.2 Compulsory acquisition	42	References	72
5.3 Compensation	43		

List of figures

1	Summary of weaknesses in the current legal and policy framework for managed relocation	4	12	South Dunedin property sales 2013-2023	41
2	Options for risk assessment and communication	6	13	Options for public compensation for loss of residential properties	44
3	South Dunedin elevation above mean sea level 2005	16	14	Compensation paid to homeowners post-event	45
4	Building consents issued since 2016 in Dunedin	16	15	Options for relocation and developing new settlements	47
5	Options for preventing new development in hazardous areas	17	16	Options for post relocation land management	51
6	Options for undertaking adaptation planning	20	17	Map showing the regeneration vision for part of the Ōtākaro Avon River Corridor	53
7	Barriers to Māori adaptation	21	18	Key elements of Model 1 Comprehensive nationally-driven approach	58
8	Options for an adaptation planning framework	23	19	Key elements of Model 2 Decentralised community-led approach	61
9	Proposed ring bund around Westport	30			
10	Fault avoidance zone mapped for Franz Josef in 2011	32			
11	Options for property acquisition and compensation	38			

Abbreviations

CERA	Christchurch Earthquake Regeneration Authority	MFE	Ministry for the Environment
DAPP	Dynamic Adaptive Pathways Planning	NBEA	Natural and Built Environment Act 2023
EDS	Environmental Defence Society	NPS-NHD	National Policy Statement for Natural Hazard Decision-making
Expert Working Group	Expert Working Group on Managed Retreat	NPS-UD	National Policy Statement on Urban Development
LAP	Local Adaptation Plan	NSW	New South Wales
LGOIMA	Local Government Official Information and Meetings Act 1987	NZCPS	New Zealand Coastal Policy Statement 2010
LIM	Land Information Memorandum	RMA	Resource Management Act 1991
LINZ	Land Information New Zealand	SPA	Spatial Planning Act 2023
MBIE	Ministry of Business, Innovation and Employment		

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EXECUTIVE SUMMARY

1 Introduction

In June 2022, the Environmental Defence Society (EDS) commenced a project titled *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future* to develop recommendations for the content of a new Climate Adaptation Act. This was in response to the expressed government intention to develop new law to address the complex and distinctive issues associated with managed relocation such as funding, compensation, land acquisition, liability and insurance.¹

In February 2023, EDS released its first working paper for the project, titled *Principles and Funding for Managed Retreat*. The paper focused on conceptualising managed relocation and explored what principles might underpin a new system and how it might be funded. Working Paper 2 *Current Legislative and Policy Framework for Managed Relocation*, released in May 2023, described and evaluated the adequacy of the current law and rights-based systems applicable to managed relocation.²

This third and last working paper in the series focuses on identifying options for reform. This draws on lessons learnt from national and international case studies, and brings together options into two models for a potential reform package. The final report, which is due in the first quarter of 2024, will contain concrete recommendations for the design of the Climate Adaptation Bill.

The working papers are designed to seek feedback on work in progress as we develop up ideas for incorporation into the final synthesis report. This third working paper seeks feedback on options for managed relocation policy, including comment on which options are preferred and why.

PART ONE: OPTIONS FOR REFORM

In Working Paper Two, which described and evaluated the adequacy of the current law and rights-based systems applicable to managed relocation, EDS identified a number of weaknesses and gaps in the current legal and policy framework. In Part One of this working paper we identify options for addressing such weaknesses and gaps.

2 Identifying, assessing and communicating risk

The effective identification, assessment and communication of information is the foundation of any effective managed relocation

programme. Although there is a robust legal framework for the preparation, assessment and communication of regular *national* climate risk assessments, by an independent agency (the Climate Change Commission),³ there is no similar requirement at a regional or local level. This is a significant gap in the existing legal framework.

There are a number of design characteristics that need to be considered when designing a system for risk assessment and communication: geographic focus, methodology, process, communication of results, responsible agency and funding, frequency and legislative home. We have set out some options in the table below structured around these design characteristics. The options are not exclusive and it is likely that various groupings of them would be chosen as a starting point for system design.



Coastal landslide, Ōrere Point, Auckland

Options for risk assessment and communication

Characteristic	Options
Geographic focus (for sub-national assessment)	• Regional • City/district • Community • Site/business or network-specific
Methodology	• Left to entity undertaking risk assessment • National non-statutory guidance and/or provision of data and tools • National Policy Statement and/or National Environmental Standard (or National Planning Framework under the Natural and Built Environment Act (NBEA)) • Other form of statutory provision (eg Climate Change Response Act, new Climate Adaptation Act, business financial disclosure legislation)
Process	• Technical exercise led by experts • Council led • Iwi/hapū led process • Public/community led process
Communication	• Public release of risk assessment reports • Web-based interactive platforms • Incorporation into regional spatial strategies (under the Spatial Planning Act (SPA)) and regional policy statements/combined plans (under the Resource Management Act (RMA) and/or NBEA) • Incorporation into Land Information Memorandum (LIM) • Factored into consenting and permitting decisions (under the RMA/NBEA and Building Act)
Timing and frequency	• As needed (including post event) • 6-yearly (to mesh with national risk assessment) • 10-yearly (to mesh with preparation of regional spatial strategies and RMA/combined plans)
Responsible agency and funding	• Central government department (Ministry for the Environment (MFE), Land Information New Zealand (LINZ)) • Independent Crown entity (Climate Change Commission, Earthquake Commission, Environment Protection Authority, new bespoke agency) • Science entity (GNS Science, NIWA) • Regional planning committee (constituted under the NBEA) • Iwi/hapū • Regional Council • City/District Council • Non-statutory bespoke grouping (eg local adaptation planning coalition) • Property owner/business

Legislative home	• None (if non-statutory) • SPA/RMA/NBEA • Climate Change Response Act • Proposed Climate Adaptation Act

3 Preventing development in risk prone areas

Most people would agree that we should not be putting more urban development in high-risk areas. Allowing an increase in the number of people, structures and assets in such areas will only result in more people being exposed to harm (and in the worst cases death), unnecessary damage to property, and ultimately a future and costly requirement to either protect or relocate out of harm’s way.

Despite this, as outlined in Working Paper 2, the current legal framework is not well configured to stop development in high hazard zones. Many new homes and associated infrastructure are being constructed in areas prone to coastal erosion, flooding and other hazards.⁴ We have set out in the table below some options for better preventing development in high hazard areas. These encompass different iterations of national direction, requirements for the content of regional spatial plans, and requirements and incentives for territorial authorities.

Options for preventing new development in hazardous areas

Level	Options
National direction	• National Policy Statement • National Environmental Standard • Mandate the New Zealand Coastal Policy Statement (NZCPS) and National Policy Statement on Natural Hazard Decision-making (NPS-NHD) as taking precedence over the National Policy Statement on Urban Development (NPS-UD) in the event of conflict
Regional level	• Require regional spatial strategies under the SPA to identify areas not appropriate for urban development due to natural hazard risk (including climate change)
District level	• Amend the RMA/NBEA to mandate refusing subdivision consent in the context of high natural hazards (including climate change) • Delete section 72 of the Building Act • Clarify that councils are liable for negligently consenting in hazardous areas • Require regular reporting by councils on the number of homes and other buildings/infrastructure in high hazard zones

4 Undertaking adaptation planning

A key component of a managed retreat process is adaptation planning which enables a community to design a response to growing natural hazard and climate change risks. A planning approach increasingly used in contexts of uncertainty and risk is Dynamic Adaptive Pathways Planning (DAPP)⁵ although other approaches can also be used. The application of adaptation planning by councils has been patchy and there is currently no statutory provision for regional and/or local adaptation planning in Aotearoa New Zealand.

In the table below we have set out a wide range of options in this arena including for the development of an adaptation planning framework, how such planning is to be initiated, what governance and plan-making bodies might be put in place, how technical support might be provided, where resourcing may be obtained for the planning process, and what statutory weight the resultant plan might have.

Options for undertaking adaptation planning

Element	Options
Māori adaptation planning	• Resource iwi/hapū/whanau to undertake planning • Place Māori in plan decision-making roles • Embed te ao Māori and local mātauranga in planning processes
Adaptation planning framework	• National guidance • Broad statutory framework • Detailed statutory provisions
Initiation	• Statutory trigger • Ministerial direction • Council resolution • Iwi/hapū and/or community concern
Governance and plan-making body	• Statutory adaptation committee • Council-mana whenua committee • Councillors
Technical support	• Council technical staff • Technical advisory panel (including members proficient in mātauranga Māori) • Independent consultants • National agency
Resourcing	• Council(s) • Joint central, regional and local government • Central adaptation fund • User pays/targeted rates
Plan status	• Non-statutory • Statutory (with links to the SPA, RMA/NBEA, Climate Change Response Act and/or Local Government Act)

5 Compensating and acquiring properties

Property ownership plays an enormously important role in Aotearoa New Zealand society. However, such high status does not mean that the state cannot ‘take’ land from property owners for public purposes. Property could be compulsorily acquired for managed retreat purposes without full or any compensation, so long as the acquisition is clearly authorised under statute. However, where the statute leaves room for any doubt, the courts will infer an obligation to pay fair compensation.

Any managed relocation policy will almost certainly require public bodies to voluntarily, and in some cases compulsorily, acquire private properties. However, as we found in Working Paper 2, there is currently a gap in the legislative framework when it comes to powers to compulsorily acquire land, and in providing a framework for compensation which accommodates the circumstances of managed relocation. In the table below we have set out some options for property acquisition more generally, including those related to voluntary acquisition, compulsory acquisition and compensation.

Options for property acquisition and compensation

Element	Options
Voluntary acquisition	Individual property purchase Cluster purchase Advance purchase Land swap
Compulsory acquisition	Public Works Act Local Government Act Climate Adaptation Act
Compensation	Full Capped (eg average house prices) Means tested Time-limited (eg only applies to properties purchased before a certain date) Only owner-occupied

6 Relocating and developing new settlements

The process of relocating people, buildings and infrastructure raises some difficult issues as will providing new settlements for people who have relocated from high risk areas. These include whether a relocation

programme should be developed, when and in what circumstances services can be withdrawn, how new settlements might be created, and who should manage the overall process (see table below).

Options for relocating and developing new settlements

Element	Options
Removal of properties and infrastructure	Relocation programme Ad hoc removal and services withdrawal
Development of new settlements in low risk areas	Urban Development Act RMA/NBEA procedures Gifting of land
Management	Council Bespoke national agency

7 Post-relocation land management

Once people have moved from a hazardous area, the land will need to be cleared and arrangements made for its ongoing management. Some

options for land status and the overall governance and management of the vacated land are shown in the table below.

Options for post relocation land management

Element	Options
Land status	Reserves Act Climate Adaptation Reserve Māori reservation
Governance/management	Iwi/hapū DOC Local council Co-governance

8 Models for managed retreat policy

In this chapter we ponder what different models of managed relocation policy might look like if we put some of the options described above together. To do this, we have set out below two potential models, one focusing on strong central government intervention, and the other adopting a more decentralised, community-led approach. We include these models, not because we are suggesting that one or the other of them should be adopted, but to provide a ‘look and feel’ for the various options when combined into a cohesive model. It is also entirely possible that managed retreat policy could transition from a less developed model (such as Model 2) to a more developed one (such as Model 1) over time.

Model 1 contemplates comprehensive government involvement to address managed relocation. It includes the creation of a new national agency (the National Adaptation Agency) with a broad role to support risk assessment and adaptation planning, and to oversee the nuts and bolts of property acquisition and the relocation of people. A specialist branch of the agency (or separate entity) would provide direct support to Māori communities.



Piha South red-zoned property

Key elements of Model 1 Comprehensive nationally-driven approach

Phase	Elements of model 1
Identifying, assessing and communicating risk	• National natural hazard risk assessment exercise undertaken, region by region, by the Climate Change Commission linked to national risk assessments • Local risk assessments undertaken by territorial authorities, with technical and financial support from a National Adaptation Agency • Technical and financial support for iwi, hapū and whanau adaptation planning on Māori land, provided from the National Adaptation Agency, and coordinated by tikanga specialists • Methodology for risk assessment (including assessing compounding and cascading risks, tolerance to risk, and what amounts to 'high risk') set out in regularly updated guidance attached to a National Policy Statement under the RMA/NBEA • Risk assessments made publicly accessible with mandatory inclusion on LIMs • Assessments to be paid 'particular regard to' in all plan-making and consenting under the SPA, RMA/NBEA, Building Act and Local Government Act
Preventing development in risk prone areas	• Regional spatial strategies under the SPA required to spatially map high risk areas • National Policy Statement/National Environmental Standard mandate development in high risk areas as a prohibited activity • In the event of conflict, the avoidance policies in the NZCPS and NPS-NHD take precedence over provisions in the NPS-UD • Councils required to refuse subdivision consent on land within high risk areas under the RMA/NBEA • Building Act prohibits granting of building permits for development in high risk areas • Territorial authorities required to regularly report on number and value of homes, other buildings and infrastructure within high risk areas • Potential liability of councils for negligently consenting homes in high risk zones removed by statute
Undertaking adaptation planning	• Statutory framework for adaptation planning provided in Climate Adaptation Act (including national guidance) • All adaptation plans must also meet the requirements of national direction under the RMA/NBEA (including environmental limits which could also effectively be 'risk thresholds'), address how nature will be supported to adapt alongside communities and how cultural connections will be maintained within the risky areas • National Adaptation Agency initiates, or approves commencement of on request by others, (non-Māori) adaptation planning (at either regional, sub-regional or local level)
Undertaking adaptation planning (continued)	• National Adaptation Agency approves the planning process and final adaptation plan ensuring consistency with national direction and the national adaptation plan • Bespoke processes provided for iwi, hapū and whanau adaptation planning to maintain tino rangatiratanga supported by specialist Māori branch of the National Adaptation Agency • Financial and technical support provided for the planning process through the National Adaptation Agency • Funding sourced from a National Adaptation Fund • Adaptation plans must be 'paid particular regard to' when developing RMA/NBEA/SPA/Local Government Act plans and considering resource consents • Adaptation plans provide the basis for seeking an 'adaptation designation' in the district plan (thereby avoiding new activities that will undermine implementation of the adaptation plans)

Acquiring properties	• Climate Adaptation Act provides powers of voluntary and compulsory acquisition of property for managed relocation with clear criteria for use • Act also provides a set of principles and framework for negotiating compensation when property is acquired (with more details provided in national policy documents developed under the Act) • A bespoke statutory mechanism provides for any acquisition of Māori land which can be only be by agreement and ensures ongoing access • National Adaptation Agency handles all compensation offers and purchase agreements • Compensation for residential properties based on full market value with a cap on maximum amount • Compensation for businesses negotiated individually based on clear criteria such as material hardship and public good • Financial agreements reached with infrastructure providers to support infrastructure relocation and nature-based 'green' infrastructure • Funding made available to councils to support managed realignment (ie providing more room for rivers and the sea) and other measures to support the ability of nature to adapt (on a more generous basis than funding for hard defences) • Grants available to support innovative responses to adaptation by councils, iwi/hapū/whanau and communities including piloting new approaches • Insurance cover made available (and mandatory) in areas slated for managed relocation until property purchase (through a government-backed scheme where private insurers have withdrawn from the market) • Compensation and other funding support is sourced from a National Adaptation Fund which has several funding sources including regular top ups from general taxation, a new stamp duty levied on property transfers, and revenue from the Climate Emergency Response Fund • The New Zealand Claims Resolution Service is expanded to address claims arising from property acquisition for managed retreat
Relocation and developing new settlements	• Areas for relocation are identified in the regional spatial strategy under the SPA • Under the Climate Adaptation Act, the National Adaptation Agency develops detailed relocation plans in collaboration with councils, iwi/hapū/whanau and the community and oversees their implementation • Service providers can apply to withdraw services from areas being vacated, under new provisions in the Local Government Act, and must remove all infrastructure once services are withdrawn and restore the site
Relocation and developing new settlements <i>(continued)</i>	• Means tested financial support is provided to assist with relocation costs and temporary accommodation is made available for those needing it when in transit between homes (and which can later be repurposed as social housing) • New land is purchased by the Crown, where needed, for the relocation of marae, papakāinga and taonga • Māori Adaptation Agency or Te Puni Kōkiri provides support for the relocation of Māori communities and associated buildings and taonga • Kāinga Ora is tasked with creating new communities under the Urban Development Act where needed • Where feasible, new sites are swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safer locations and minimising losses

Post relocation land management	• National Adaptation Agency oversees land clearance, amalgamation of titles by LINZ, and land transfer to the ultimate owner (which could be council, mana whenua or a formally constituted community group) • New land classification in the Reserves Act, of Climate Adaptation Reserve, is the default classification of vacated land • Where land is held under Reserves Act, the council develops a regeneration plan for vacated land in collaboration with iwi/hapū/whanau and the community, and with support from the National Adaptation Agency • Provision is made for land to be declared Māori reserve land in which case hapū lead development of the regeneration plan with financial support from the National Adaptation Agency • Funding support for the implementation of the regeneration plan, including governance and management arrangements, provided from the National Adaptation Fund

Model 2 would see more emphasis put on communities making their own adaptation decisions and with central government playing a low key largely supportive role, rather than leading the process. Adaptation processes would be mainly led by councils (either territorial authorities on their own or combined with other councils), with only broader guidance and some ad hoc funding support from central government. The model is based on the proposition that communities know best, and territorial authorities are the level of government best placed to know the needs of their communities.

Emphasis is put on risk identification and communication of information doing the work of helping to avoid development being put in the wrong place. Councils will remain potentially liable in tort for making negligent decisions that ignore this information, and property purchasers will

be alerted to risk through its inclusion on LIMs, implementing a ‘buyer beware’ policy.

Greater reliance is also placed on councils funding a greater proportion of residential property compensation (reflecting the recent shift towards an equal share between governments in the Cyclone Gabrielle property offer) which means that at-risk property owners in poorer communities are likely to receive less compensation. There is no provision for pre-funding such as through the establishment of an adaptation fund or similar. In many respects this model is based on the status quo, but with some strengthened legal tools and increased support provided by central government.

Key elements of Model 2 Decentralised community-led approach

Phase	Elements of model 2
Identifying, assessing and communicating risk	• Methodology for risk assessment (including compounding and cascading risks, tolerance to risk, and what amounts to ‘high risk’) set out in regularly updated guidance attached to a National Policy Statement under the RMA/NBEA • Regional councils and territorial authorities undertake risk assessments under the current provisions of the RMA/NBEA/SPA • Risk assessments made publicly accessible and mandatory inclusion on LIMs
Preventing development in risk prone areas	• Regional spatial strategies under the SPA required to identify high risk areas • National Policy Statement/National Environmental Standard provide framework for councils to identify areas of high risk in their planning documents in order to provide a policy and rules framework to manage the risks through consenting • Hazard information must be shown on LIMs under LGOIMA to support a buyer beware approach • Territorial authorities required to regularly report on number and value of homes, other buildings and infrastructure within high risk areas • Councils are potentially liable in tort for negligently consenting development in high risk zones

Undertaking adaptation planning	• National non-statutory guidance provided for adaptation planning • Adaptation planning undertaken on the initiative of councils under a broad framework inserted into the Local Government Act • Iwi/hapū and whanau determine own processes for adaptation planning • Councils and and iwi/hapū/whanau can apply to central government for grants, sourced from Vote Environment, to support adaptation planning • Adaptation plans are a matter to 'take into account' in RMA/NBEA/SPA/Local Government Act planning • Funding for implementation of aspects of the adaptation plan, such as building flood defences/seawalls or purchasing land for relocation, is provided by government through MBIE on application
Acquiring properties	• Properties (including Māori land) only acquired on a voluntary basis, by councils, under the Local Government Act • Councils provide 50% of the cost of residential property compensation and central government 50% • Compensation based on national non-statutory guidance (and is likely to be considerably less than full market value depending on the ability of the council to pay) • No compensation is provided to businesses • Service providers can apply to a separate infrastructure fund for financial support to relocate infrastructure • Insurance cover not required and may be withdrawn by private insurers
Relocation and developing new settlements	• Service providers can apply to withdraw services from areas being vacated, under new provisions in the Local Government Act, and must remove all infrastructure once service withdrawn • Te Puni Kōkiri provides support for the relocation of Māori infrastructure and communities • Kāinga Ora is tasked with creating new communities under the Urban Development Act • Where feasible, the new sites are swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safety
Post relocation land management	• Vacated land reverts to ownership of the territorial authority or regional council • The council must consult with iwi/hapū/whanau and its community on the future use and management of the land under the Local Government Act • New land classification in the Reserves Act, of Climate Adaptation Reserve, is the default classification of vacated land

Each model has a number of strengths and weaknesses which are discussed in the main body of the report. Model 2 could be seen as a transitional step towards a more comprehensive approach (in Model 1) and may be more applicable to small managed relocation exercises. By providing interim support to councils to get going on adaptation planning, expertise would build up on how best to go about it, as well as a greater depth of knowledge to inform a more rigorous statutory approach which may be applicable to larger projects.

It would also be possible to combine elements of both models, with regional risk assessments undertaken at a national level along with the identification of areas in need of local adaptation planning, and local councils along with their communities doing local level planning and applying for national funding to support it.

PART TWO: SUMMARY OF INTERNATIONAL MODELS

In this part of the report we review a series of international case studies on managed relocation and draw out insights that can help inform policy development in Aotearoa New Zealand.

9 Summary of international models

The following six international case studies were investigated for this project and are described in the body of the report:

1. Room for the River programme (managed realignment), the Netherlands
2. Blue Acres programme (managed realignment), New Jersey, USA
3. Managed realignment in Medmerry, Chichester, the United Kingdom
4. The managed relocation of the small town of Grantham in Queensland, Australia
5. Buy-back and resilience schemes for flood affected homes in New South Wales (NSW) and Queensland, Australia
6. Efforts to relocate Shishmaref, a small indigenous community in Alaska

The case studies were selected for further investigation after an international desk top scan to identify approaches that had achieved some success and were potentially relevant to the Aotearoa New Zealand context. A number of key themes were evident from the case studies.

The success of managed relocation was very dependent on access to a strong and predictable funding source. This was especially important for voluntary buy-back schemes, which if limited by funding, will cause some residents to miss out. In some cases the programme was entirely funded by central government (Room for the River) and in others there was a mix of sources including federal government, state government, insurance and donations. Local councils were not generally expected to fund the programmes, although they were often the key implementers of managed relocation.

Many of the case studies incorporated multi-level governance structures. This required coordination between national/federal (and/or state) government, as the over-arching decision-maker and potentially funder, and local governments which have contextual knowledge about their geographic area. Local government involvement helped ensure meaningful

stakeholder and community engagement. In some cases a specialist entity was involved, such as the Queensland Reconstruction Authority.

In the Grantham example, the council took the impetus to relocate the community and had sufficient resources to buy land for the relocated community. However, the council was then strongly supported by the state government in providing access to fast track procedures for rezoning.

All the case studies illustrated the importance of stakeholder and community engagement in managed relocation efforts, and this was also highlighted in the Aotearoa New Zealand case studies included in the main report. In most cases, the relocation process was voluntary (with Room for the Rivers being the exception). In some cases a range of options were funded including relocation or adaption of houses in situ. Whatever the programme, strong social infrastructure was crucial in successfully managing relocation processes.

Nature-based solutions – such as managed realignment highlighted in the Room for the Rivers, Blue Acres and Medmerry case studies – can achieve significant environmental and community gains when undertaken alongside managed relocation. They can reduce hazard risks for the remaining community, create more room for nature, and improve community amenity.

Many of the programmes were of a reasonably small scale and there are questions as to whether the approaches could be scaled up significantly. For example, the Room for the River programme purchased 200 houses, 115 houses were relocated in Grantham, and the Blue Acres programme has purchased only around 1,000 houses over a 28 year period. The NSW flood buy back programme is larger but had approved only 11 per cent of the 5,001 applications for a buy back 20 months after the flood disaster.⁶

10 Conclusions

This working paper canvasses a wide range of options for development of managed retreat policy, while also traversing a wealth of experience both in Aotearoa New Zealand and overseas. Our intent has been to widen the debate as to what might be possible and desirable to include in such policy, and in particular in a new Climate Adaptation Act. We are keen to hear feedback on the options presented.

This is the last working paper in the series. In our final report, due early in 2024, we will be putting forward what we consider to be the best path forward for the country, in terms of developing managed retreat policy. The proposals will strongly focus on the content of the proposed Climate Adaptation Act. We do this work, cognisant that adapting in the face of growing climate hazards is likely to be one of the greatest future challenges facing this country.

Endnotes

1

Ministry for the Environment, 2002, *Adapt and thrive: Building a climate resilient New Zealand: Draft national adaptation plan: Managed retreat*, New Zealand Government, Wellington

2

The working papers, along with other project-related material, can be accessed at <https://eds.org.nz/our-work/policy/projects/climate-change-adaptation/>

3

Climate Change Response Act 2002, Section 5ZQ

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See Lawrence J, S Allan and L Clarke, 2021, *Using current legislative settings for managing the transition to a dynamic adaptive planning regime in New Zealand*, Resilience to Nature's Challenges National Science Challenge - Enabling Coastal Adaptation Programme, Wellington, at 1

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See Lawrence J, M Haasnoot, L McKim, D Atapattu, G Campbell and A Stroombergen, 2019, 'Dynamic Adaptive Policy Pathways (DAPP): From theory to practice', in V A W J Marchay, W E Walker, P J T M Bloemen and S W Popper (eds), *Decision-making under deep uncertainty*, Springer Cham

6

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1 Introduction



Houses behind eroded dunes at Buffalo Beach, Whitianga

In June 2022, the Environmental Defence Society (EDS) commenced a project titled *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future* to develop recommendations for the content of a new Climate Adaptation Bill. This was in response to expressed government intention to develop new law to address the complex and distinctive issues associated with managed relocation such as funding, compensation, land acquisition, liability and insurance.¹

In February 2023, EDS released its first working paper for the project, titled *Principles and Funding for Managed Retreat*. The paper focused on conceptualising managed relocation and explored what principles might underpin a new system and how it might be funded. Working Paper 2 *Current Legislative and Policy Framework for Managed Relocation*, released in May 2023, described and evaluated the adequacy of the current law and rights-based systems applicable to managed relocation.²

This third and last working paper in the series focuses on identifying options for reform. This draws on lessons learnt from national and international case studies, and brings together options into two models for a potential reform package. The final report, which is due in the first quarter of 2024, will contain concrete recommendations for the design of the Climate Adaptation Bill.

Since the publication of our second Working Paper in May this year, there have been multiple developments on the climate adaptation and related fronts. The Future for Local Government Review Panel released its final

report in June.³ The Māori Affairs Select Committee reported on its briefing on Māori climate adaptation in July⁴.

In August, the Expert Working Group on Managed Retreat (Expert Working Group) published its proposed system for te hekenga rauora/ planned relocation.⁵ We have attempted to summarise key proposals throughout this working paper but note that the report includes 89 detailed recommendations. We encourage readers to refer to the Group's full report.

At the same time as the Expert Working Group Report was released, the Ministry for the Environment (MFE) issued a discussion document titled *Community-led Retreat and Adaptation Funding: Issues and Options*.⁶ This was followed by a public inquiry into climate adaptation initiated by the Environment Select Committee. Submissions closed on 1 November 2023.

In September, MFE released a proposed National Policy Statement for Natural Hazard Decision-making (NPS-NHD) with submissions closing on 20 November 2023. We discuss this document further below. More recently, the buy-out process commenced for homes affected by the North Island floods and Cyclone Gabrielle earlier this year.

The working papers are designed to seek feedback on work in progress as we develop up ideas for incorporation into the final synthesis report. This third working paper seeks feedback on options for managed relocation policy, including comment on which options are preferred and why.

1.1 Shifting political context

This working paper was largely written as the country was in the run up to a general election, creating some uncertainty as to the future of the recently enacted Natural and Built Environment Act 2023 (NBEA) and Spatial Planning Act 2023 (SPA). As this paper was going to print, the newly installed coalition government confirmed its intention to repeal the legislation, and revert to the Resource Management Act 1991 (RMA) while new replacement legislation is drafted.⁷ Whatever the outcome, there is now considerable uncertainty as to the statutory framework that a new Climate Adaptation Act will need to interface with. While the future legal landscape remains uncertain, in this working paper we have continued to reference both the RMA and the new NBEA and SPA.

1.2 Methodology and structure of working paper

The material in this working paper draws on our previous analysis in Working Papers 1 and 2, as well as a series of national and international case studies on managed relocation, largely based on desk top studies. A summary of our international case studies is included in Part Two of this working paper. Dr Sasha Maher also undertook an in-depth case study for the project focused on Ōmana ki Umupuia (including the Auckland coastal suburb of Maraetai), which included interviews with 56 residents and non-residents and engagement with Ngāi Tai ki Tāmaki. The case study, which EDS has published alongside this working paper, is available on the EDS website at www.eds.org.nz. Our case study investigations informed

a series of spotlights included in this (and previous) working papers and have enriched our thinking about potential solutions.

For this working paper, specifically, we obtained input from Te Ahi Tūtata, the Beca Māori Advisory Service. During July 2023, We also undertook 12 in-depth interviews with planning and climate adaptation practitioners in Aotearoa New Zealand to obtain a more in-depth understanding of practice on the ground. The interviews were undertaken on a confidential basis to encourage frankness. We have reproduced some anonymous quotes from these interviews in this working paper to highlight key points.

The working paper is structured around two parts. The first explores a large number of options for reform, broadly focusing on the steps involved in managed relocation as identified in Working Paper 2. Interspersed amongst the analysis are a number of spotlights profiling adaptation responses in communities around Aotearoa New Zealand. This is to highlight and illustrate particular points but also so we can learn from, and build on, past experience.

Part One concludes with the description of two possible models for managed relocation policy, bundling together different packages of the various options described in the earlier sections. This is to provide a sense of what different options might look like as a package, rather than to suggest that either model is to be preferred, or is the right one for the country. We hope that the models will generate fruitful debate as the government considers the shape of new legislation.

Part Two of the working paper summarises the results of an international review of managed relocation and adaptation responses. It includes projects undertaken in the Netherlands, the USA, the United Kingdom and Australia. One case study particularly focuses on the adaptation challenges facing indigenous communities. We then draw out key themes of relevance to policy development in this country.

Endnotes

- 1 Ministry for the Environment, 2022, *Adapt and thrive: Building a climate resilient New Zealand: Draft national adaptation plan: Managed retreat*, New Zealand Government, Wellington
- 2 The working papers, along with other project-related material, can be accessed at <https://eds.org.nz/our-work/policy/projects/climate-change-adaptation/>
- 3 Future for Local Government Review Panel, 2023, *The future for local government: Final report*, Wellington
- 4 Māori Affairs Select Committee, 2023, *Briefing on Māori climate adaptation*, Report of the Māori Affairs Committee, Parliament, Wellington

- 5 Expert Working Group on Managed Retreat, 2023, *Report of the Expert Working Group on Managed Retreat: A proposed system for te hekenga rauora/planned relocation*, Expert Working Group on Managed Retreat, Wellington
- 6 Ministry for the Environment, 2023, *Community-led retreat and adaptation funding: Issues and options*, Ministry for the Environment, Wellington
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Part 1: Options for reform



Wooden seawalls, Clarks Beach, Auckland

In Working Paper Two, which described and evaluated the adequacy of the current law and rights-based systems applicable to managed relocation, EDS identified a number of weaknesses and gaps which are summarised in Figure 1. In Part One of this working paper we identify options for addressing such weaknesses and gaps. Our analysis is structured around a framework that is similar to that shown in Working Paper 2 (but slightly simplified) and focuses on a number of key steps required to undertake managed relocation:

1. Identifying, assessing and communicating risk
2. Preventing development in risk-prone areas
3. Undertaking adaptation planning
4. Compensating and acquiring properties
5. Relocating and developing new settlements (when required)
6. Post-relocation land management

Although shown in sequence here, these steps are likely to be iterative and closely connected. For example, the process of assessing adaptation pathways in Step 3, requires an understanding of where people might move to if relocating and what will happen to the land post-relocation (ie Steps 4 to 6).

Weaknesses and gaps in the current legal and policy framework for managed relocation identified in Working Paper Two included:

1. Although there is a robust framework for the preparation and communication of a regular national climate risk assessment, by an independent agency, there is not similar rigour at a regional or local level. Under current law, outside the coastal environment, there is no obligation on any agency to regularly collect and make available natural hazard and climate risk information.
2. The current legal framework is not well configured to prevent urban development in hazard zones. Only the Building Act can be relied on to achieve this through the refusal of building consents, but only when the safety of people is at stake.
3. Councils can refuse to grant subdivision consent (but not other consents) under the RMA when there is a significant risk from natural hazards, but they are not required to do so
4. It will not usually be possible to downzone land in a high hazard zone, to exclude urban development, unless the council offers to purchase the property at market value and the landowner agrees, due to the 'reasonable use' requirement under the RMA.

5. The New Zealand Coastal Policy Statement provides some clear directives on avoiding redevelopment and land use change in coastal hazard areas. However, there is no similar direction for how councils are to address natural hazards outside the coastal environment.
6. The National Policy Statement for Urban Development appears poorly configured to avoid development in high hazard zones. Although it provides for natural hazards as qualifying matters, the regime effectively discourages councils from taking a strategic long-term approach to addressing cumulative and compounding risks.
7. Although the Climate Change Response Act requires the preparation of a national adaptation plan, there is currently no specific statutory provision for regional and local adaptation planning. Local Government can choose to undertake such planning as part of its broad capabilities, but there is no *explicit* provision for implementation including assigning responsibilities and securing funding.
8. No current legislation is well configured for anticipatorily acquiring land exposed to hazard in circumstances of managed relocation. The Public Works Act and Urban Development Act are likely unsuitable. The Land Act (via the Commissioner of Crown Lands) or the Local Government Act (via local authorities) could enable a mechanism for voluntary purchase, but neither would provide a suitable framework for compensation.
9. There is no obligation on councils to protect private property from coastal erosion or to maintain existing coastal protection works. However regional councils may be required to maintain existing flood protection works.
10. With the exception of water services, it is possible for councils to withdraw most services (including roading) from a site facing managed relocation, so long as a proper decision-making process has been undertaken.
11. In the context of an emergency there are strong statutory provisions for moving people away from unsafe homes and buildings. However, these are designed to be short term measures and are unsuitable for managed relocation, especially if it is pre-emptive.
12. The Urban Development Act provides a set of powerful tools to undertake urban development in an integrated manner to provide new settlements for those who need to relocate from areas exposed to natural hazards. Such development could also potentially be undertaken under the Land Act, although its provisions are dated and not as well configured for this purpose.
13. The vacated land could be managed by councils and/or other entities such as iwi/hapū under the Reserves Act or by the Department of Conservation under the Conservation Act. Land could also be placed in the Treaty Settlement Landbank. There is currently no specific category of land under the Reserves Act that is focused on restoration and rehabilitation of natural ecosystems.

Figure 1: Summary of weaknesses in the current legal and policy framework for managed relocation



Homes affected by a landslide, South Piha, Auckland

2 Identifying, assessing and communicating risk

The effective identification, assessment and communication of information is the foundation of any effective managed relocation programme. Hazards and exposure and vulnerability to them (ie the components of risk), need to be robustly identified and communicated to relevant stakeholders and the public, in a clear and accessible way. Ideally this should occur ahead of a hazard event occurring. The success of any managed relocation project will largely depend on the extent to which the affected community feel they have been included from the start, that their views are consistently heard, and that they have a stake in the final decision.

Although there is a robust legal framework for the preparation, assessment and communication of regular *national* climate risk assessments, by an independent agency (the Climate Change Commission),¹ there is no similar requirement at a regional or local level. This is a significant gap in the existing legal framework.

There are a number of characteristics that need to be considered when designing a system for risk assessment and communication: geographic focus, methodology, process, communication of results, responsible agency and funding, frequency and legislative home. We have set out some options for these in Figure 2. These are not exclusive and it is likely that various groupings of them would be chosen as a starting point for system design. One particular grouping is proposed in the recommendations of the Expert Working Group highlighted in the spotlight below.

Characteristic	Options
Geographic focus (for sub-national assessment)	• Regional • City/district • Community • Site/business or network-specific
Methodology	• Left to entity undertaking risk assessment • National non-statutory guidance and/or provision of data and tools • National Policy Statement and/or National Environmental Standard (or National Planning Framework under the NBEA) • Other form of statutory provision (eg Climate Change Response Act, new Climate Adaptation Act, business financial disclosure legislation)
Process	• Technical exercise led by experts • Council led • Iwi/hapū led process • Public/community led process

Communication	- Public release of risk assessment reports - Web-based interactive platforms - Incorporation into regional spatial strategies (under the SPA) and regional policy statements/combined plans (under the RMA and/or NBEA) - Incorporation into Land Information Memorandum (LIM) - Factored into consenting and permitting decisions (under the RMA/NBEA and Building Act)
Timing and frequency	- As needed (including post event) 6-yearly (to mesh with national risk assessment) 10-yearly (to mesh with preparation of regional spatial strategies and RMA/combined plans)
Responsible agency and funding	- Central government department (MFE, Land Information New Zealand) - Independent Crown entity (Climate Change Commission, Earthquake Commission, Environment Protection Authority, new bespoke agency) - Science entity (GNS Science, NIWA) - Regional planning committee (constituted under the NBEA) - Iwi/hapū - Regional Council - City/District Council - Non-statutory bespoke grouping (eg local adaptation planning coalition) - Property owner/business
Legislative home	- None (if non-statutory) - SPA/RMA/NBEA - Climate Change Response Act - Proposed Climate Adaptation Act

Figure 2: Options for risk assessment and communication

Spotlight on recommendations of Expert Working Group on risk assessment and communication

The Expert Working Group proposes that *high-level region-wide assessments* be undertaken, using existing information where appropriate, in order to identify and prioritise areas that require adaptation planning (and will be subject to a Local Adaptation Plan (LAP)). The outcome of the assessment is to be included in the regional spatial strategies prepared under the SPA. More detailed area-specific risk assessments are to be undertaken as part of the LAPs.

The region-wide assessments would be undertaken by an expert panel appointed by either a formal committee consisting of the regional council, Māori and territorial authorities (with an option for the Crown to be represented) or the regional planning committee (if established under the NBEA/SPA). The expert panel would include expertise in a wide range of matters related to understanding risk including mātauranga Māori and tikanga. Risk assessments would not be subject to public submission but would be audited by an independent national-level body, potentially the Climate Change Commission.

National direction would provide a framework for the regional assessments in order to standardise methodologies for the assessment of risk, including setting nationally consistent risk thresholds. Such direction would also mandate what risk circumstances require adaptation planning.

2.1 Geographic focus

Risk assessments will likely need to be undertaken at different scales depending on the risk being evaluated and the timing of the risk assessment within planning and consenting processes. A regional level scale appears to make sense in the first instance, at least for a high level risk scan, as it can encompass risks that span multiple districts and rohe. It also coincides with the geographic scope of regional spatial strategies under the SPA, regional policy statements and plans under the RMA, and combined plans under the NBEA. This is the level proposed by the Expert Working Group for a ‘first pass’ risk assessment.

However, undertaking risk assessment at the regional level will likely not be easy, if the assessment is to be based on existing information (as proposed by the Expert Working Group). This is because of the often patchy and inconsistent data available at a regional level. As we were told by a regional planner:

Often you don't have the data, or the data is missing in part. Some of the territories have it and some don't, or it's done based on different assumptions and purposes. So it's like a fruit salad which you can't robustly pull together at a regional level.

More detailed risk assessments will also likely be required for hapū, whanau and communities exposed to significant hazard risk and for property owners and/or businesses seeking to develop land within hazardous areas. They will also be required for large businesses subject to financial disclosure requirements as discussed below. The Expert Working Group recommends that such detailed assessments be undertaken as part of Local Adaptation Plans (LAPs). This makes sense, with such planning encompassing both Māori-led and community-led planning. However, it will likely not be the only circumstance where detailed local risk assessment is required.

Undertaking a more localised assessment of the most significant risks will likely be important, well before any local planning process commences, in order to halt further intensification in high hazard prone areas where the risks are unacceptably high. It will also be important to alert property owners (and prospective buyers and developers) to potential risks as early as possible. As discussed below, stopping further development in hazardous areas will require detailed and robust risk assessments that can stand up in court.

A climate adaptation legal framework will need to make provision for risk assessments to be undertaken at different levels and in a range of circumstances. There may need to be a formal process for determining what geographic scale/focus is adopted, why and when.

2.2 Methodology

Risk assessment is complex. It often has to account for multiple hazards affecting a particular area which may be compounding (when multiple hazards act together to change the level of impact) and/or cascading (where one hazard event generates another or causes a cascade of impacts). Often the relevant information will be missing or not be available at the level of detail required. Gathering new information and undertaking detailed analyses can be costly, time consuming and result in a constant cycle of updating data.

A spotlight on assessing compounding risk in South Dunedin

South Dunedin, a low-lying suburb of Ōtepoti Dunedin near the coast, is within the rohe of Ngāi Tahu. The suburb was built on a former coastal wetland, salt marsh and lagoon system which was infilled during the late 1800s. It currently houses around 13,500 permanent residents and 1500 businesses.² The area has long been subject to flooding due to its shallow water table, which in some parts of the suburb lies just 0.4 metres below ground level.³ Things came to a head, when in 2015, around 175 millimetres of rain fell in 24 hours (exceeding the one-in-100 year flood rain level of 120mm).⁴ The resulting floodwaters damaged more than a thousand houses and businesses. Sewage contamination forced many residents to evacuate.⁵

The shallow freshwater aquifer under South Dunedin, is permeable to the sea, and so the water table level rises and falls with the tides. This means that rising sea levels and greater storm surges, under climate change, will cause an ever increasing rise in groundwater levels. There is also evidence of ground subsidence, which will compound the effects of sea level rise and heavy rainfall on the water table level, and a risk of liquefaction in some areas⁶.

The natural drainage of the reclaimed area, through the coastal dunes, was blocked off to create a barrier to storm tides.⁷ Although providing protection from the sea, this removed any natural drainage from South Dunedin, with the only egress for water after rainfall being the network of stormwater and (through infiltration) wastewater pipes. However, even these cannot drain water away without the aid of pumping stations, because the pipes are low-lying and have minimal gradient.

The infrastructure is aged, subject to leakages, and well overdue for replacement.⁸ Wastewater overflows of untreated sewerage into the Otago Harbour occur frequently with heavy rain. The ability of the land to soak up rainwater, as opposed to it being channelled into the stormwater pipes, has been significantly reduced due to the high percentage of impermeable surfaces. Overall, 60 per cent of land in residential areas has been paved over, and this increases to up to 100 per cent in commercial areas.⁹

So how does the council account for these compounding risks? The dynamics of the groundwater system under South Dunedin is complex, and difficult to understand on its own, without adding into the mix the impacts of rising sea levels (and more frequent storm surges) on groundwater, and the performance of aging stormwater and wastewater pipes under heavy (and increasingly intense) rainfall. Determining what will or will not flood requires complex computerised models in the context of basic information not being available. As we were told by one interviewee, “we realised we didn’t understand groundwater, and the system generating sea level data and rainfall predictions is only available nationally. So how do we combine these at a decision-taking level, and with a quality and robustness we can stand behind.”

As well as assessing compounding and cascading risks, there is also uncertainty on how to assess whether a risk is tolerable or not. As the Earthquake Commission recently stated:



Seawall, St Clair Beach, South Dunedin

While Aotearoa New Zealand has well-established approaches for hazard risk management, we lack a nationally agreed approach for assessing and reviewing our risk tolerance. Furthermore, there is no framework (regulatory or otherwise) to understand what is tolerable, intolerable, or acceptable, and there is no consistent, agreed terminology to support this. This often leads to ambiguity in who manages risk and inconsistency in what risks are significant, as well as inconsistent approaches to risk across regions and organisations.¹⁰

The Earthquake Commission’s July 2023 guidance on risk tolerance methodology¹¹ seeks to address this gap. The Skyline Enterprises carpark application (see spotlight below) is instructive in indicating how the Environment Court has approached the assessment of tolerability of risk. Although the case revolved around risk from rockfall, the discussion around acceptable risk has wider application to climate-enhanced risks.

Spotlight on evaluation of tolerable hazard risk, Skyline carpark application, Queenstown

In 2017, Skyline Enterprises applied for a resource consent to construct and operate a multi-level 449-space carpark below Bob’s Peak, in order to service a gondola terminal in Queenstown. During the Environment Court hearing of the application, the rockfall risk to users of the carpark was identified as an issue, with large boulders potentially dropping from the peak onto the carpark.¹²

There was some debate, during the hearing, as to the appropriate level of tolerable risk that should not be exceeded by the proposal. The applicant’s expert engineering geologist argued that some remedial works on the higher bluffs of Bob’s Peak would be sufficient to address the issue. In rebuttal, Dr Massey gave evidence on behalf of Otago Regional Council, noting the uncertainty around the time a person would spend at the toe of the slope between the carpark and gondola base station (a matter important to the calculation of the individual risk of being hit by a falling rock).¹³

Dr Massey also argued that the Environment Court “should establish risk criteria for determining the tolerability or otherwise of slope instability-related risk to the site, based on societal acceptance of comparable levels of risk arising from other sources”. A suitable starting point, he argued, would be 1×10^{-4} (or 1/10,000) annual individual fatality risk which had been used by Christchurch District Council for slope hazard zones in its district plan.¹⁴

But as one of our interviewees observed, “they started talking about annual individual fatality risk. But the person most at risk is the bus driver who is in the carpark for the longest time. And what happens if a rock fall hits two buses full of tourists and they get wiped out? I’m not sure how well that is quantified, as if that happened, the consequences would be more than the sum of individual risk. There would be risk to tourism in New Zealand and to the economy. I’m not sure how well that is fully understood.”

In the end, the Court declined to define criteria for the tolerability of the risk, noting a “lack of any consultation as would reliably inform the court on community risk tolerance”.¹⁵ Instead, consent was granted on the basis of a list of conditions which were found to constitute the “practicable minimisation of the rockfall hazard”¹⁶ avoiding the need to rely on an assessment of acceptable risk.

The case serves to highlight the difficulty in establishing whether risk is tolerable to specific communities, and in assessing whether that risk level has been exceeded. The risks associated with Bob’s Peak were recently highlighted in September 2023 when heavy rainfall generated a slip which carried a substantial quantity of mud and forestry debris down the Peak and into the central business area.¹⁷

There is a wealth of knowledge embedded within hapū, including but not limited to Pūrakau (tribal stories), that can assist with contemporary risk assessment. Such knowledge is drawn from deep observations of the living and non-living world and long experience of managing risk. It is shared via oral methods within whakapapa to enable application to current risk contexts recognising that the future will be different from the past. In post-colonial times, the application of such knowledge has been constrained by the loss of whenua (land), which means that many modern-day marae are in locations that would not likely have been chosen by Māori under traditional Māori risk management decision frameworks.

Traditional risk assessments have not necessarily reflected Māori tikanga or values and therefore have often not met the needs of hapū or whānau. How to ensure risk assessments are more relevant to Māori will require careful consideration.

There is a range of recent guidance on risk assessment more generally¹⁸ but no mandatory approach. This has likely contributed to uneven practices around the country, with councils using varying methodologies to undertake risk assessment, influenced by the availability and quality of data.¹⁹ There is also a lack of standardisation

in how infrastructure providers assess and respond to natural hazard risks. As noted by one interviewee:

Hazard assessment methodologies between different councils vary, so risk assessment in Nelson is different to risk assessment in the Bay of Plenty, depending on what consultant has done the work and the time frames adopted ... and the council doesn’t know what to ask for even when they do get experts.

There is a firmer framework in place for some businesses. Under the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021 large financial institutions (including insurers and banks) and large publicly listed companies are now required to publish annual climate-related disclosures. Reporting is against the Aotearoa New Zealand climate standards which are based on the recommendations of the international Task Force on Climate-related Financial Disclosures.²⁰ These recommendations sought to provide “a voluntary, consistent framework” for “more effective disclosure about the risks and opportunities presented by climate change”.²¹

The Expert Working Group has recommended statutory national direction to standardise methodologies for the assessment of risk, including setting nationally consistent risk thresholds. This makes sense. The structure of such national direction will need to be flexible, to allow regular updates as understanding of risk assessment evolves. This could be achieved through reference in such national direction to “taking into account national guidance” in a similar way to the reference in Policy 24 of the New Zealand Coastal Policy Statement (NZCPS) which has enabled MFE to produce regularly updated guidance on coastal hazards and climate change.²²

National direction could be housed under the RMA, as a national policy statement and/or national environmental standard, or as part of the National Planning Framework under the NBEA. Alternatively it could be placed under the proposed Climate Adaptation Act. The best location will ultimately depend on who is undertaking the risk assessments and what influence they have on other parts of the planning system.

As noted above, in September 2023 MFE released a proposed NPS-NHD and associated discussion document.²³ This is presented as an interim measure until more comprehensive natural hazard direction can be developed over the next few years.²⁴ Policies 1, 2 and 3 address the assessment of risk. However, this is only in very general, high-level terms (see below).

Proposed National Policy Statement for Natural Hazard Decision-making

Policy 1: When making planning decisions, decision-makers are to determine the level of natural hazard risk as high, moderate, or low.

Policy 2: When determining natural hazard risk, decision-makers are to consider:

- (a) first, the likelihood of a natural hazard event occurring (either individually or in combination) and the consequences of the natural hazard event occurring, including potential loss of life, serious injury, adverse effects on the environment, and potential serious damage to property and infrastructure; and
- (b) second, tolerance to a natural hazard event, including the willingness and capability of those who are subject to the risk (such as a community, Māori, or the Crown) to bear the risk of that natural hazard (including its cost) and any indirect risks associated with it.

Policy 3: Decision-makers must adopt a precautionary approach when determining natural hazard risk if:

- (a) the natural hazard risk is uncertain, unknown, or little understood; and
- (b) the natural hazard risk could be intolerable.

1.4 Interpretation

(1) In this National Policy Statement:

high natural hazard risk means a risk from natural hazards that is intolerable

low natural hazard risk means a risk from natural hazards that is generally acceptable

moderate natural hazard risk means a risk from natural hazards that is more than a low risk, but is not intolerable

Significantly there is no definition of “intolerable” which is the key metric for managing risk, particularly when considering managed relocation. No time frame is specified over which risks should be assessed and there is no provision for consideration of how climate change will impact natural hazard risk over time. In addition, there is no hook for the application of more detailed guidance on the assessment of particular risks and addressing those that are compounding and cascading. EDS’s submission

on the proposal, which raises further issues, can be found at www.eds.org.nz. Overall, the document represents an early first stage in policy-making. It will need to be considerably fleshed out if it is to sufficiently address risk assessment in a managed relocation situation.

2.3 Process

When considering the process to undertake a risk assessment, it is pertinent to consider whether it is largely a technical process, best undertaken by experts in the field, whether it is something that the affected community and/or iwi and hapū should lead, or whether it should be a combination of both approaches. The answer may lie in how the assessment will ultimately be used and what it is intended to achieve. However, all assessments will need to draw on relevant expertise and use sound methodologies.

The Expert Working Group recommended that the regional risk assessment be undertaken by an expert panel and be audited by an independent national-level body, potentially the Climate Change Commission (with this being a new role for the Commission). However, local risk assessments are proposed to be developed as part of the LAP with much more intense community engagement. This is on the basis that such localised processes would have more direct impact on property owners and therefore need greater community acceptance. In addition, information from the community would be required in order to inform vulnerability assessments.

A complicating factor in deciding whether a risk assessment is essentially a technical exercise, or whether it requires community input, is the complex nature of the exercise itself. Hazard assessment is predominantly a biophysical exercise, quantifying and estimating the timing and likelihood of certain things happening (such as coastal erosion, flooding etc). However, assessment of ‘risk’ also requires an assessment of exposure to the hazard and vulnerability to impacts that may occur. These are partly social matters which likely require some form of interaction with affected communities to be assessed. In addition, when crafting a management response to risks, it is important to understand the tolerance of individuals and communities to the risks affecting them. It is telling that a lack of community engagement prompted the Environment Court to refrain from determining risk tolerance in the Skyline case (described in the spotlight above).

There is another reason why early engagement with local communities on risk assessments will likely be important. It goes to the acceptability of the resulting science. In our separately published case study on Ōmana

ki Umpuia, which focused on a relatively well-heeled coastal suburb in Auckland (Maraetai), extensive in-depth interviewing of community members affected by coastal inundation identified significant distrust of local government and climate change science. Overall, the case study highlighted that climate change science can be considered unreliable and debateable, authorities can be seen as open to corruption and untrustworthy, self-sensory knowledge can be considered to be more reliable than science, and even experience of extreme events does not necessarily create openness to change.²⁵

All this serves to highlight the considerable challenges that will need to be overcome if communities are to accept the science that will be critical in determining whether they can stay or leave their homes and communities. Community engagement when framing up the brief for a risk assessment, could be helpful in subsequent community acceptance of the results, particularly in matters such as determining how vulnerability is assessed and scored. Insurers could also be helpful in indicating risk circumstances in which insurance cover may be restricted, priced more highly, or withdrawn entirely.

Where a risk assessment affects a Māori community, it will be essential that iwi/hapū and/or whanau are partners in framing up the parameters of any project, including defining the questions to be answered (which will need to reflect a Māori world view) and the information base to be drawn on (which will need to include mātauranga Māori if made available).

2.4 Communication

“It’s always beneficial to give people as much info as early as you can and as much certainty as you can is always helpful.” (Interviewee)

“A fatal flaw in comms and engagement that I have seen is building up an expectation of ‘certainty’ of information in the community. More important, I would argue, is the communication that there is inherent uncertainty...but that is okay and decisions shouldn’t be held up as there never will be ‘certainty’.” (Reviewer)

As well as taking care to undertake a robust risk assessment, it will be equally important that the results are communicated in a way that maximises community understanding and acceptance and builds trust in the process. This means that skilled science communicators will likely need to play a strong role in the process, supported by a team of community engagement facilitators, who can guide the community towards a common

understanding of the issues. There will need to be effective engagement with Māori, so that iwi, hapū and whanau can provide their data (if willing), and obtain a good understanding of the risks affecting their whenua.

Much may come down to the way data is presented. For example, our interviewees noted:

When you identify something as hazardous, property owners don’t like that at all. So it often seems to come down to not mapping something as a hazard but mapping something as where an assessment is required.

With our coastal hazard assessment we have definitely had climate denialism. What helped was modelling sea level increments, rather than scenarios, and then having a slider which could select increments of 20cm, 40cm etc. We had it independently peer reviewed which helped a bit but people pushed back saying we had biased peer reviewers.

Such community push back on the science, may reduce, as more weather events impact communities and receive higher profile in the media. But it needs to be recognised that risk communication is a skilled task. In the aftermath of the Auckland floods in January and February 2023, the review of the response (the Bush Report) highlighted how communication teams can become overloaded in a crisis situation by the sheer amount of work required to keep everyone informed.²⁶ This highlights the benefits of pre-emptive retreat where the response can be planned and undertaken over a much longer time frame.

Publicly releasing all relevant information will be important, as well as presenting it in a form that is easily accessible. Councils have more recently been using web-based tools to enable people to identify risks to their properties and communities in an accessible and visually interesting manner.²⁷ Transparency, such as through the mandatory inclusion of risk information on Land Information Memorandum (LIM), is also important so that the property market is able to operate on the basis of good information.

As we noted in Working Paper 2, the recent amendments to the Local Government Official Information and Meetings Act 1987 (LGOIMA) will help make information on LIMs more transparent when it comes to hazards, requiring councils to include risk information to the extent that it is known to the local authority.²⁸ However, it doesn’t go so far as to require hazard information to be collected in the first place, a gap which will need to be

filled elsewhere in the system. The Bill has passed its third reading, and the LIM amendments will come into force on 1 July 2025, unless brought in earlier by an Order in Council.²⁹

There is also the issue of the status of risk assessments within statutory planning and consenting processes. The Expert Working Group has recommended that regional risk assessments be incorporated into regional spatial strategies prepared under the SPA, although it is not clear what level of granularity can practicably be provided in what are high level strategic documents. The regional risk assessments would also be recognised in regulatory plans prepared under the RMA or NBEA and would be taken into account in consenting and permitting decisions. This makes sense. To the extent that such information is available it should inform decisions on where and how development can take place.



Coastal defences, Prospect Bay, Tāwharanui Peninsula

2.5 Timing and frequency

Risk assessment is often undertaken after a hazardous event has occurred rather than prior to harm occurring. As one of our interviewees explained:

The only time a thorough risk assessment was undertaken in Christchurch and Kaikōura, was after the earthquakes. We put money into doing a thorough risk assessment after the event, but it's very hard to justify it beforehand. Justifying spending money on something that hasn't occurred is difficult but once it has happened money is thrown at it. There's an irony there.

This serves to further highlight the need to make some risk assessments mandatory (including regional risk assessments). However, other risk assessments will need to be undertaken at different times, including after damaging events have occurred. In that case, the assessment is often used to determine whether property owners can repair and rebuild their houses in situ, or will be required to move. Where such risk assessments are delayed it can be traumatic for those affected (see spotlight on Matatā).

Spotlight on timing of risk assessment at Matatā

In 2005, after heavy rainfall in the adjacent catchment, several large debris flows hit the small coastal town of Matatā destroying 27 homes, damaging 87 other properties and causing \$20 million of damage.³⁰ Despite this, it was not until 2013, after efforts to find an engineering solution failed, that a formal risk assessment was undertaken.³¹ A further refinement of the risk assessment was undertaken in 2015,³² ten years after the debris flow incident. It wasn't until 2022, 17 years after the incident, that all residents had finally left the high risk area.³³

Where risk assessments are designed to inform planning documents it makes sense that they are updated according to the same cycle as the plans themselves. This would suggest a mandatory 10-year update to mesh with regional spatial strategies and plans, and with more frequent updates provided for (potentially aligned with the three-year long term planning cycle or six-yearly preparation of the national risk assessment) where significant new information becomes available.

2.6 Responsible agency and funding

“In terms of who should do it, it comes down to money, who has got the money and how well the councils work together. Historically, there has been a lot of antagonism between councils.” (Interviewee)

Currently, apart from at the national level (where the Climate Change Commission is tasked with undertaking regular national risk assessments), no one agency is responsible for undertaking risk assessments. Nor is any funding tagged for such assessments. This can be a significant barrier to councils undertaking such work. As we were told by interviewees:

The cost of doing a risk assessment is very expensive, and there is a lot of uncertainty when mapping areas, which is a limitation.

District councils typically do not have a huge amount of resourcing.

The Expert Working Group has recommended that regional risk assessments be undertaken by an expert body appointed by either a formal committee consisting of the regional council, Māori and territorial authorities (with an option for the Crown to be represented) or the regional planning committee, if established under the NBEA, which has a similar constitution.

An alternative to this approach would be a nationally-led process to undertake consistent and comprehensive regional risk assessments across the entire country, starting with those regions with the most pressing natural hazard risk issues. As highlighted by Irons and Watts:

In the case of mapping, it makes far more sense for central government to use its economies of scale and its greater institutional resources to develop mapping methods that are both effective, consistent and based on verifiably reliable data.³⁴

Such a national exercise could be led by a central government agency (such as MFE, Land Information New Zealand (LINZ) or the Earthquake Commission), by an independent national body (such as the Climate Change Commission which could create useful linkages between the national and regional risk assessments), or by a science entity (such as GNS Science or NIWA). An advantage of a national exercise would be that agencies such as Waka Kotahi, the Ministry of Education and Te Whatu Ora could more easily provide information from the risk assessments they have undertaken to inform their own portfolio management across the country.

One national exercise would almost certainly cost less than 15 or so separate regional initiatives. In addition, if such an exercise were funded by central government, it would enable regional and local funds to be focused on undertaking more detailed community-specific risk assessments within the framework provided by the nationally-led exercise. A consistent national approach could also help identify and prioritise significant gaps in information that government investment in data gathering and assessment (such as through public good science funding) could help fill.

To the extent that regional and/or local risk assessments are mandated by law, there is also the question of whether some accompanying technical and funding support should be provided to councils. This would help avoid the exercise becoming another non-funded mandate that councils need to deal with in the context of increasingly stretched budgets. The relevant financial contributions of the different bodies to risk assessment could form part of a new funding settlement between central and local government (which would also need to address the other costs of climate adaptation) following the Review into the Future for Local Government.³⁵ It might also be possible to embed trained personnel in local authorities, for a period of time, to assist with the process.

A national natural hazard risk assessment exercise, undertaken region-by-region, could usefully generate consistent data and risk assessments across the country. This would help address the varying levels of resourcing and funding within councils, and the problem that councils facing the greatest risks do not necessarily have adequate funding to address them (for example on the West Coast). It would also be a way to address inconsistent methodologies in assessing risk and would likely be the most cost-efficient option overall for the country.

In terms of local risk assessment, the Expert Working Group has recommended that this be undertaken by a special purpose ‘adaptation committee’ which would likely include the regional council, the relevant territorial authorities, appropriate iwi, hapū and Māori representation, and an optional Crown representative. This is very similar to the constitution of the regional risk assessment body, although presumably would only include the directly affected territorial authorities and more locally connected Māori representation. It would be important to ensure that such a grouping had the requisite capability to undertake local risk assessments.

2.7 Legislative home

It seems likely that any comprehensive risk assessment process would need to have a statutory basis to ensure that such assessments are in fact undertaken. The current largely discretionary system has led to a patchwork of data and assessments with many gaps. As EDS said in Working Paper 2:³⁶

Given the growing size and urgency of the climate emergency, there could be a legal obligation to prepare and make public regular climate risks assessments at a regional level, potentially in the new Climate Adaptation Act. Such risk assessments could be required to follow national guidance which is regularly updated as new information on climate risks comes to hand. They will need to be comprehensive, addressing all relevant climate risks to communities, and not just focus on council owned and managed assets.

A legal framework for regional and local risk assessment could be housed either under the Climate Change Response Act (to connect to the national risk assessment), the RMA and replacement NBEA/ SPA regime (to connect to planning and consenting), or the proposed Climate Adaptation Act. It would need to be accompanied by clear national direction as indicated above.

Whichever home is chosen, close statutory linkages to other pieces of legislation will be important, as risk assessments will need to have wide utility within the various regimes informing regional spatial planning, district land use planning, resource consenting, building permitting and managed relocation exercises.

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3 Preventing development in risk prone areas



Kaiaua, where homes flooded during the January 2018 storm

Māori place names reflect inherent knowledge of the physical environment which was an integral part of Māori life. For example, 'Tai Tapu' in Canterbury means special tide or sacred coast, potentially indicating that the whenua would rather be a wetland. If we had considered the meaning of the place name and the mātauranga Māori of the hapū, before building and settling in such a place, would we have gone ahead?

Most people would agree that we should not be putting more urban development in high-risk areas. Allowing an increase in the number of people, structures and assets in such areas will only result in more people being exposed to harm (and in the worst cases death), unnecessary damage to property, and ultimately a future and costly requirement to either protect or relocate them out of harm's way. Despite this, as outlined in Working Paper 2, the current legal framework is not well configured to stop development in high hazard zones. Many new homes and associated infrastructure are still being constructed in areas prone to coastal erosion, flooding and other hazards.¹

"The system will issue consent unless there are good reasons not to. Consent officers will say yes if they don't have sufficient data to say no, or if they said no, they would be challenged in court." (Interviewee)

We were told by interviewees that, in the absence of compelling evidence to demonstrate that a property should not be developed, consent will be granted, and councils often lack the resources to obtain such compelling evidence:

If you are going to have policies, methods and rules in plans [to stop development in hazardous areas] you need really robust science to underpin them. Everyone attacks the science and that's often where it falls over. Stage 1 is getting the science lined up and for lots of small councils they don't have the money to do that.

Often councils are dealing with engineers who say the risk is low. If you look at a tsunami, what are the chances of it happening, given the lifetime of the building is 50 years and there is a chance of a tsunami every 1000 years? So when dealing with a low frequency risk with high consequences it's hard to justify not allowing someone to build there.

The three year local government political cycle also makes it difficult for councils to make hard decisions to restrict development that endure (as demonstrated in the Franz Joseph spotlight below).

A spotlight on consenting in flood-prone South Dunedin

As outlined in the spotlight above, South Dunedin is subject to considerable flood risk which will only be exacerbated by climate change. Much of South Dunedin is either only just above the high tide level or below it (see Figure 3). It has been described as “one of Aotearoa New Zealand’s most exposed urban areas to the impacts of climate change-related flooding and sea-level rise”.² However, South Dunedin does not show up as being subject to flood hazard on the Otago Regional Council flood hazard maps, because there are no open water courses in suburb (only underground stormwater pipes) and so technically there is no fluvial flood risk.

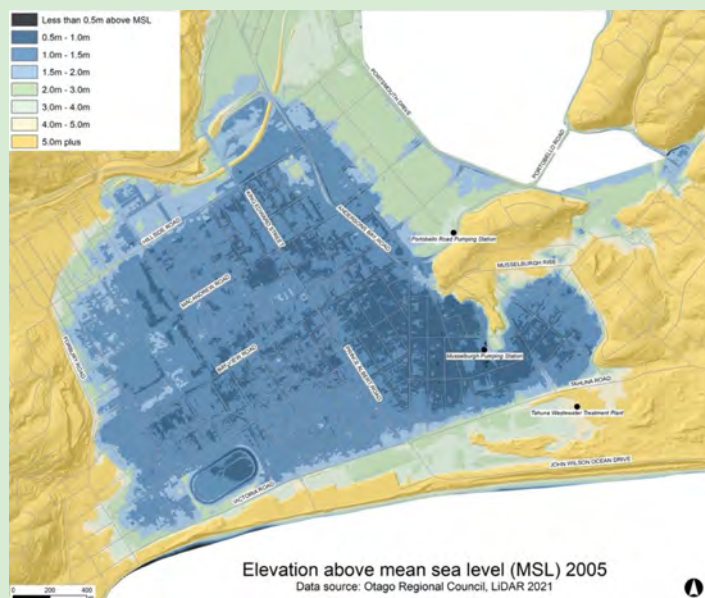


Figure 3: South Dunedin elevation above mean sea level 2005

Source: Dunedin City Council

Despite the evident and growing hazard risk, development has been intensifying within the suburb. A snapshot from the Dunedin City Council’s Building Consent map (see Figure 4), shows consented homes since 2016 (and after the 2015 major flood event), and makes it clear that numerous stand-alone homes have been consented within the suburb as well as a large number of more intensive townhouses.

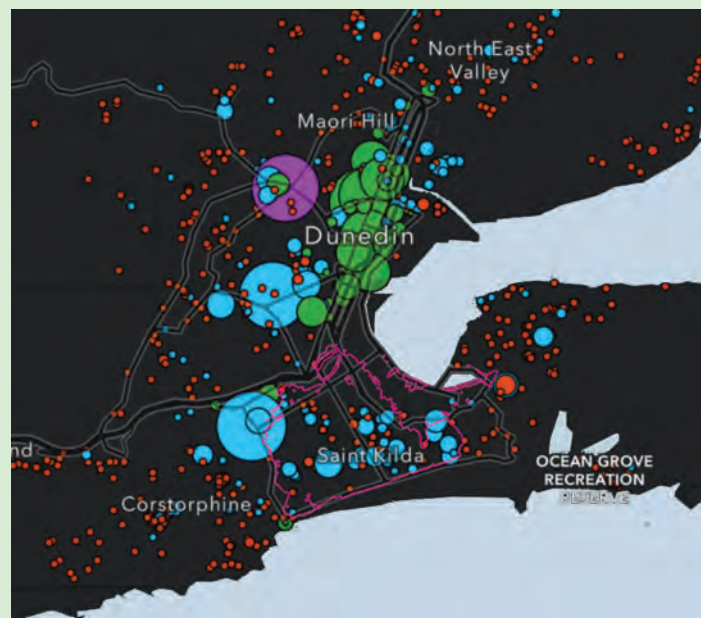


Figure 4: Building consents issued since 2016 in Dunedin

(red – houses, blue – townhouses and other flats/units, green – apartments, purple – retirement village units, pink outline – areas less than 2 metres above sea level) Source: Dunedin City Council

More recently, changes to the district plan rules (through Variation 2) have further opened up South Dunedin to intensive development. Its Residential 2 zoning is now designed to provide “for change in the existing urban form to medium density suburban residential living through redevelopment of older and poorer-quality housing stock” and construction of multi-unit developments.³ This appears to have generated a spike in townhouse building. We were told by interviewees that around 60 per cent of consents issued in South Dunedin during the last 12 to 18 months have been for townhouses (and this predominance of townhouses is evidenced on the Council’s building consent map). This consenting of new development seems inconsistent with the Council’s more recent proposal to strategically buy up properties in the suburb to facilitate managed relocation (described below).

We have set out on Figure 5 some options for better preventing development in high hazard areas. These encompass different iterations of national direction, requirements for the content of regional spatial plans, and requirements and incentives for territorial authorities to refuse resource consents and building permits.

Level	Options
National direction	• National Policy Statement • National Environmental Standard • Mandate the NZCPS and NPS-NHD as taking precedence over the NPS-UD in the event of conflict
Regional level	• Require regional spatial strategies under the SPA to identify areas not appropriate for urban development due to natural hazard risk (including climate change)
District level	• Amend the RMA/NBEA to mandate refusing subdivision consent in the context of high natural hazards (including climate change) • Delete section 72 of the Building Act • Clarify that councils are liable for negligently consenting in hazardous areas • Require regular reporting by councils on the number of homes and other buildings/infrastructure in high hazard zones

Figure 5: Options for preventing new development in hazardous areas

3.1 National direction

It seems clear that a discretionary approach to preventing development in high-risk areas has not worked, with councils feeling unable to say ‘no’ unless there is compelling evidence to support such a decision. This raises the potential of using national direction, in the form of a national policy statement and/or national environmental standard, to make it clear that councils must not consent such development.

This is the intent of the proposed NPS-NHD which has been presented as an interim step before more detailed direction is developed. As already noted, EDS has lodged a comprehensive submission on the proposal which sets out how the national direction could be strengthened (which can be accessed at <https://eds.org.nz>).

As discussed earlier, one matter that still needs clear direction in preventing development, is how to assess risk tolerability, something that is lacking in the proposed NPS-NHD. As one of our interviewees highlighted:

We need stronger central government rules around consenting in hazard zones. We need to draw the line around risk tolerability, because it’s the hardest thing to do, determining what is acceptable risk and to whom. It’s about judgement and values. How do you do that?

There is also the issue of the need for hazard zoning to be adaptive in itself. As suggested by one interviewee:

We need a rolling risk zone, so it’s not fixed, so you are not working to a line that you are [hypothetically] safe behind, which seems like a recipe for disaster. We often talk about a timeline, say 2100, and a threshold as though climate change will stop happening then. This risk is we put more into areas which will later become hazard areas. We haven’t called them that now but we might need to.

The benefit of a national environmental standard (as opposed to a national policy statement), is that it can have immediate effect on resource consenting and does not have to await plan changes, which can take some years. In the absence of requisite plan changes, resource consent decision-makers need only have regard to national policy statements and do not need to ‘give effect’ to them.⁴ This means that they can be outweighed by other considerations.

Currently the NZCPS has strong avoidance policies in terms of redevelopment or change of land use where it would “increase the risk of adverse effects from coastal hazards”.⁵ However, these can be over-ridden by provisions in the National Policy Statement on Urban Development (NPS-UD) seeking to intensify urban environments. The NZCPS is identified as a qualifying matter in the NPS-UD that councils may address but aren’t required to. And qualifying matters can only be brought into play after overcoming significant hurdles as outlined in Working Paper 2.⁶

Somewhat perversely, the proposed NPS-NHD will not apply to territorial authorities preparing ‘intensification planning instruments’ which are designed to give effect to the NPS-UD (see below). Ostensibly this is to “minimise disruption and complexity”. But this means that the risks of natural hazards will receive less weight in the very areas where they may be most important – where more people are being encouraged to live and work (with associated investment in infrastructure and houses).⁷ Although Clause 1.5 (below) might reduce disruption and complexity to current council planning processes, it seems likely to considerably exacerbate them in the future, when properties and people need to be protected and/or moved.

NPS-UD 1.5 Application to intensification planning instruments

- (1) In order to minimise disruption and complexity for local authorities, nothing in this National Policy Statement applies to a specified territorial authority (as defined in section 2 of the Act) when it is preparing an intensification planning instrument under section 80F of the Act.

This problem could be rectified by giving priority to the more protective national policy statements – the NZCPS and NPS-NHD. Such conflicts could be addressed in the National Planning Framework, by creating a clear hierarchy prioritising the need to address natural hazards above urban intensification.

3.2 Regional level

At the regional level, another way to help address the problem of new development being consented in hazard zones would be for regional spatial strategies to be more clearly tasked with identifying no-go areas for development, based on hazard risk assessment, as well as identifying safe areas for relocated communities to move to. Currently the strategies must identify and otherwise provide for “areas that are or will be vulnerable to risks” ... “arising from natural hazards and the effects of climate change”.⁸ This could be strengthened by referring to identifying areas that are and are not appropriate for urban development due to natural hazard risk. However, there is a question as to whether more definitive identification of such areas should be left to RMA/NBEA plans where appeal rights for property owners are available.

3.3 District level

As discussed in Working Paper 2, provisions of the NBEA strengthen the ability of councils to downzone land to restrict development due to the hazard risk, which is a positive thing.⁹ However, this still leaves the decision to do so as discretionary. We also referred to section 106 of the RMA which

states that a consent authority may refuse to grant a subdivision consent if there is a “significant risk” from natural hazards (noting that “significant” is not defined). This could be strengthened considerably by changing “may” to “must”. There is a similar provision in section 291 of the NBEA where a consent authority “may” refuse to grant a subdivision consent if it considers “it is necessary to avoid, mitigate, or reduce risks arising from natural hazards”. In a similar manner this could be usefully changed to “must”.

The Building Act is the last backstop when it comes to preventing buildings in high risk areas. However, existing provisions do not mandate building consent to be withheld when buildings might be subject to significant hazard damage.¹⁰ Instead, there is a waiver and determination process that allows construction of buildings in hazard prone areas on a case-by-case basis. As we noted in Working Paper 2, this enables homes and structures to be built in high hazard zones so long as there is little risk to human life. The building consent system is under review but addressing hazard issues is not a focus.¹¹ The Act could be made considerably stronger by simply deleting section 72.

Another potentially effective way to dissuade councils from granting consents for development in hazardous areas would be to make it clear that councils will potentially be liable for damages resulting from any poor (and negligent) decision-making in this area.¹² This could be accompanied by clear guidance on how councils can avoid such liability.

Greater transparency, through mandatory reporting on the hazard situation in a district, could also usefully throw light on the impact of council decision-making. As one interviewee highlighted:

We need to have transparent reporting and accountability that goes on beyond the political cycle. We should be reporting annually on the number of houses in hazard zones, and the number of disasters and their cost, like a stock assessment. If you have a reporting framework that shines a light on it, then you rely on media and the public to seek accountability for making those decisions.

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- 5 NZCPS, Policy 25 (b)
- 6 See Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation*, Working Paper 2, Environmental Defence Society, Auckland, 31
- 7 The Discussion Document on the proposed NPS-NHD states that “decision-makers sometimes attribute less weight to natural hazard risk than to other matters, such as the need for new infrastructure and housing” which risks continuing due to this exception
- 8 Spatial Planning Act 2023, sections 16(1)(b)(i) and 17(1)(i)(i)
- 9 Peart R and B D Tombs, 2023, *Current legislative and policy framework for managed relocation*, Working Paper 2, Environmental Defence Society, Auckland, 29
- 10 Building Act 2004, sections 71-73
- 11 See Ministry of Business, Innovation and Employment, 2023, *Options paper: Review of the building consent system*, MBIE, Wellington
- 12 The legal extent of such liability is currently unclear. Irons and Watts have expressed doubt as to whether a consent applicant or their successor in title could sue for planning decisions made under the RMA. See Irons C and J Watts, 2019, *Adaptation to sea-level rise: Local government liability issues*, Deep South National Science Challenge, Wellington, 221

4 Undertaking adaptation planning



Shoreline baches at Sandspit

Mātauranga Māori unpicks the nuances and layers within a single concept. Te taiao encompasses whenua (land), wai (water), koiora (all living things) and ahuarangi (climate change over time). Mātauranga requires looking deeper into the interconnectedness of life and cultural concepts and traditions, into local environment and climate, into belief and understanding. It adds richness and depth to adaptation desision-making.

A key component of a managed retreat process is adaptation planning which enables a community to design a response to growing natural hazard and climate change risks. A planning approach increasingly used in contexts of uncertainty and risk is Dynamic Adaptive Pathways Planning (DAPP)¹ although other approaches can also be used. The application of adaptation planning by councils has been patchy and there is currently no statutory provision for regional and/or local adaptation planning in Aotearoa New Zealand.

In Figure 6 we have set out a wide range of options in this arena including for the development of an adaptation planning framework, how such planning is to be initiated, what governance and plan-making bodies might be put in place, how technical support might be provided, where resourcing may be obtained for the planning process, and what statutory weight the resultant plan might have. We discuss these in more detail below.

Element	Options
Māori adaptation planning	Resource iwi/hapū/whanau to undertake planning Place Māori in plan decision-making roles Embed te ao Māori and local mātauranga in planning processes
Adaptation planning framework	National guidance Broad statutory framework Detailed statutory provisions
Initiation	Statutory trigger Ministerial direction Council resolution Iwi/hapū and/or community concern
Governance and plan-making body	Statutory adaptation committee Council-mana whenua committee Councillors
Technical support	Council technical staff Technical advisory panel (including members proficient in mātauranga Māori) Independent consultants National agency

Resourcing	Council(s) Joint central, regional and local government Central adaptation fund User pays/targeted rates
Plan status	Non-statutory Statutory (with links to the SPA, RMA/NBEA, Climate Change Response Act and/or Local Government Act)

Figure 6: Options for undertaking adaptation planning

Spotlight on recommendations of Expert Working Group on adaptation planning

The Expert Working Group proposes that LAPs be prepared for areas identified by the region-wide risk assessment and a prioritisation exercise as requiring adaptation planning. Māori communities would also have the ability to prepare a LAP on their own behalf and the Crown could direct the preparation of a LAP.

The LAP would be prepared by an adaptation committee which would likely include the regional council, relevant territorial authorities, appropriate iwi/hapū and Māori representation and optional Crown representation. There would be intensive community engagement throughout the development of the LAP including through the establishment of a community panel.

The LAP would include an area-specific risk assessment, identification of options for adaptation (including alternative pathways), a confirmed package of adaptation measures (including trigger points), a list of actions for implementation with responsibilities and timings (which will be binding), and review and monitoring (including monitoring signals and triggers). The LAP would also contain a pre-event recovery plan which could be deployed if a hazardous event occurs during the life of the plan. Funding agreements could be developed to support implementation.

The LAP would go through a formal statutory process including notification of a draft, written submissions, hearing by an independent panel and final decision by the adaptation committee. Merits appeals would be available where the adaptation committee did not adopt the recommendations of the independent panel.

An adaptation designation in the RMA/NBEA plan would flow from the LAP to authorise the construction of infrastructure (such as a seawalls or stopbanks) and make any required changes to land use activities and land use rules.

4.1 Adaptation planning for Māori communities

Before considering the various stages of adaptation planning, it is important to consider the specific needs of Māori communities. As we outlined in Working Paper 2, Māori will be disproportionately affected by climate change.² However, it needs to be recognised that Māori have been adapting to their environment for centuries. The whakatauaāki “ka mate kainga tahi, ka ora kainga rua” speaks to resilience and the Māori appreciation of adaptation. It translates to “when one dwelling place declines, a second one will emerge to take its place” reflecting the need to be ready and prepared for when your home changes. Such lessons from the past can help inform future adaptation pathways for Māori.

Spotlight on enablers of Māori relocation

Relocation and mobility is in the whakapapa of Māori and bringing those stories to light is important when considering and planning for Māori climate adaptation. Through his PhD research, Akuhata Bailey-Winiata studied written records of 51 communities which had relocated or were planning relocation due to a number of different natural hazards. While studying the relocation following the Tarawera eruption, in 1886, Bailey-Winiata identified a number of relocation enablers for the community: *tuku whenua* – gifting of land with no money exchanged; *autonomy and decision-making* – strong leadership and innovation led by their community; *perspectives of lands and infrastructure* – maintaining connections to land; and *availability and opportunity of new site* – whakapapa of new land and ability to sustain the community.³

However, there are many barriers that inhibit Māori from adapting with the ease shown by their tupuna, as set out in Figure 7 below. Despite such barriers, iwi, hapū and Māori are actively engaged in discussing and planning for adaptation (see for example ‘Te Tāhū o Te Whāriki, Anchoring the Foundation’ the Ngāi Tahu Climate Change Strategy).⁴ Such efforts could be better supported and resourced to enable Māori to lead adaptation strategies and uphold rangatiratanga. The Māori Climate Platform is an example of an initiative which provides dedicated funding to enable Māori-led climate action planning and solutions.⁵

Barrier	Explanation
Historical dispossession	Colonisation resulted in iwi, hapū and Māori communities being dispossessed of their ancestral lands which disrupted economic livelihoods, cultural practices and traditional knowledge systems.
Limited resources	Iwi, hapū and Māori communities often have limited access to funding and administrative/technical support. This hinders their ability to plan for and implement climate adaptation as well as to fully engage in multiple government policy development processes.
Power imbalance	Māori can lack sufficient power to influence outcomes and ensure their cultural values are respected and included in plans.
Cultural disconnect	Western approaches to adaptation planning, which often prioritise economic and infrastructure-based solutions, can be alien to Māori cultural values which emphasise interconnected cultural, environmental and social approaches.
Institutional barriers	Institutions and decision-making processes can overlook unique Māori perspectives and local mātauranga making it difficult for Māori to effectively participate in adaptation planning. Divisions of opinion within Māori communities can also make it difficult to engage with one voice.

Figure 7: Barriers to Māori adaptation
Source: Adapted from Ministry for the Environment, 2023, Table 3⁶

Spotlight on the elements of a te Tiriti-based adaptation system
Drawing from MFE’s discussion document⁷ and recommendations of the Māori Affairs Select Committee on adaptation⁸ the following elements could found a te Tiriti-based adaptation system: 1. Upholding the Crown’s te Tiriti obligations and Māori rights and interests 2. Integrating te ao Māori and mātauranga Māori where it is made available 3. Adequately resourcing iwi, hapū and Māori to participate as they choose

4. Enabling joint, shared or preferably delegated decision-making to Māori, particularly in relation to adaptation strategies impacting Māori land.
5. Fostering positive, collaborative working relationships and enabling robust and deep conversations to be had between Māori communities, the Crown and local government

It is notable that Māori have shown great ability to respond to crises such as when, during the Covid 19 and Cyclone Gabrielle responses, marae opened their doors to feed and house the displaced. Iwi organisations across the country provided essential support and resources to those in need.⁹ However, even though marae are willing to open their doors to support displaced whānau and communities during natural hazard events, many marae are susceptible to such events themselves.¹⁰ In line with Point 4 above, central and local government will need to ensure marae and papakāinga are adequately resourced to improve infrastructure and support hapū to prepare for future climate risks. We address such issues further in the sections below.

4.2 Adaptation planning framework

A summary of several options for providing a framework for adaptation planning is provided in Figure 8. Currently there is no statutory framework for adaptation planning. Guidance currently exists for such planning within the coastal environment¹¹ and more detailed guidance on DAPP is currently being prepared by MFE. As already indicated, the coastal guidance has a statutory hook in the reference in Policy 24 of the NZCPS to “taking into account national guidance”. But this is only when identifying areas of the coastal environment potentially affected by coastal hazards, and not when undertaking adaptation planning itself, which is not specifically referenced in the NZCPS. A key question is whether adaptation guidance should be given statutory recognition.

The advantage of providing non-statutory guidance is that it can be flexible, and be applied in varying ways depending on the circumstances. It also enables innovation, the use of pilot projects to test what works, and learning from doing. For example, Christchurch City Council is treating its coastal adaptation planning project at Whakaraupō Lyttelton Harbour/ Koukourarata Port Levy as a pilot, so it can test the approach before rolling it out to other parts of the city. Such a piloting approach has also been used in France (see spotlights). As one interviewee stated:

Some guidance is useful so long as it does not prevent local creativity and flexibility and allow councils to come up with their own solutions.

Such an experimental approach is likely to be useful as Aotearoa New Zealand does not have a great depth of experience with climate-related adaptation planning to draw on. It also highlights the importance of widely disseminating best practice case studies, including among Māori communities, as proposed by the Māori Affairs Select Committee.¹²

Spotlight on Whakaraupō Lyttelton Harbour/Koukourarata Port Levy adaptation planning

Instead of simultaneously undertaking coastal adaptation planning over the entire district, as some councils have done, Christchurch City Council decided to undertake its planning in sections, initially focusing on the Whakaraupō Lyttelton Harbour/Koukourarata Port Levy area. It also adopted a relatively narrow focus, centred on managing risk to public infrastructure, rather than that affecting private property. In particular, low-lying access roads will likely be threatened by sea level rise and may need to be moved. The project is seen as a way to pilot the Council's approach through a learning by doing approach.¹³

To lead the project, the council has established a Coastal Panel which consists of 13 community and rūnanga representatives. The Panel is tasked with considering the impacts of coastal hazards on communities, agreeing on potential adaptation pathways (taking into account the community tolerance to risk), and making recommendations to Council on preferred options and pathways. It is also tasked with engaging with the wider community on proposed pathways. The Coastal Panel is supported by a Specialist and Technical Advisory Group comprising 12 subject matter experts including a cultural advisor. A Coastal Working Group, comprised of councillors, provides oversight of the programme.¹⁴ We were told the structure is working well.

To date, the Coastal Panel has developed a set of community objectives and has identified six priority adaptation locations where coastal hazards are already having an impact (or will be over the next 30 years) and where there was a high level of public asset exposure. The programme is still in its early stages and is ongoing.

Spotlight on piloting managed retreat on the French Atlantic coast

In 2010, Storm Xynthia battered the French Atlantic coast along with other parts of Western Europe. The combination of a storm surge, high tide and large waves caused flood defences to fail and over 50,000 hectares of land was flooded. There were an estimated 10,000 evacuees, £1.5 billion in property damage and 47 deaths.¹⁵

Following the storm, the French government developed a 'National Strategy for Integrated Coastline Management' which had a strong focus on managing coastal erosion. One of its recommendations was to adopt managed retreat and it called on the Ministry of Ecology to conduct experimental programmes to test how this could be implemented.¹⁶ Five pilot sites, each with different coastal typologies, received a combined €600,000 from central government to explore managed retreat measures over a two year timeframe.¹⁷ The main objective of these experiments was to explore different governance options and to contribute learnings to the drafting process of national guidelines for policy makers. National seminars were organised to communicate experiences from the pilots and a shared platform was established.¹⁸

An evaluation of the impacts of the pilots found that they had several positive impacts.¹⁹ Overall, the pilots reinforced the legitimacy, credibility and practicality of undertaking managed retreat on the ground. In particular, they enabled "collective learning" and the "gradual acceptance of relocation". They also helped create a community of researchers and managers with new knowledge on relocation and enhanced the "political legitimization and credibility of this measure".²⁰

Of course, the disadvantage of providing only non-statutory guidance for adaptation planning is that it can be ignored, potentially leading to processes around the country with differing robustness and quality. A halfway house would be to provide a statutory 'peg' for adaptation planning guidance, say in national direction under the RMA/NBEA, or similar direction under the proposed Climate Adaptation Act. The guidance could be something to 'have regard to' or 'take into account'. It could be regularly reviewed to incorporate lessons from growing practical adaptation planning experience on the ground.

An alternative would be to provide a more robust statutory framework for adaptation planning. This could be in the form of a broad framework, as is provided for local board plans under the Local Government Act.

Under that Act, section 48N sets out the purposes of local board plans and some matters that it must include (such as a statement of default levels of service and an indicative board budget). The process for developing the plans is left open with the local board able to “follow whatever processes it considers appropriate” to give effect to the purposes of the plan and meet the consultative requirements under the Local Government Act.²¹

A similar approach could be provided for in the proposed Climate Adaptation Act, with a purpose and minimum content set out for plans (including setting clear objectives and targets), and with a tag to regularly updated planning guidelines. But councils could be left with considerable autonomy to determine how to go about the planning process depending on the needs of their communities. This would be more in line with current practice, where each council is adopting a slightly different approach. It may also enable the process to be better tailored to meet the needs of different iwi/hapū and whanau.

“There is a need for clear adaptation objectives for local adaptation planning areas and adaptation targets as part of any climate adaptation planning so that ongoing monitoring can report on progress against objectives.” (Reviewer)

Alternatively, a detailed planning framework could be provided for in the Climate Adaptation Act, similar to that for the development of RMA plans, and this is essentially the approach proposed by the Expert Working Group. LAPs would have mandated content and go through a formal statutory process including public notification, written submissions and hearing by an independent panel. There would also be limited merit appeal rights. This approach would provide greater certainty as to content and quality and enables the plans to be given considerable statutory clout when implemented.

Whatever approach is taken to providing a framework for adaptation planning, it is important that there is clear guidance on how iwi, hapū and whanau are to be engaged in, or given the lead for such planning.

Guidance should also emphasise the importance of developing a deep understanding of the history of the affected land. As our Ōmana ki Umupuia case study concluded:

Greater understanding of place-based history is critical to acknowledging tangata whenua when designing and implementing an engagement and planning process. Cultural injustices need to be

acknowledged and must not be repeated... Relevant knowledge will include understanding of areas that may not contain designated, cultural heritage sites but are, for example, part of the broader history of land confiscation and colonisation... Managed retreat can be an opportunity to redress past injustices and environmental harm.²²

Option	Pros	Cons
Non-statutory framework	Flexible and can be applied in different ways to different situations	Can be ignored leading to varying approaches and quality around the country
Guidance with a statutory ‘peg’ under a national policy statement (RMA/NBEA)	Still retains some flexibility and can be readily updated as new information becomes available	Lacks direct statutory status and could still result in varying approaches around the country
Broad framework under Local Government Act or Climate Adaptation Act	Still allows flexibility while providing a firmer legislative framing	Ensures minimum requirements are met (eg for process and content)
Detailed framework under the Climate Adaptation Act	Ensures consistency and quality. Enables the plans to have more statutory clout.	One size may not fit all and the framework may need to be regularly updated as practice evolves.

Figure 8: Options for an adaptation planning framework

Any adaptation planning framework will also need to provide for the needs of nature. As we said in Working Paper 1:

Natural systems do possess some innate capacity to adapt to climatic and environmental change. However, this will be inadequate in many cases due to the impacts of land-use change, habitat fragmentation and ecological degradation. Ecological resilience in the face of climate change requires active support. Opportunities to support biodiversity adaptation in Aotearoa New Zealand include: removing physical barriers to adaption such as seawalls and stopbanks (in some cases termed ‘managed realignment’); protecting and restoring natural processes and ecosystem health (such as through pest eradication and creating habitat connectivity);

protecting habitat (such as creating more protected areas); and species-specific approaches (such as translocations).²³

The necessary level of formality for the planning process will depend, to some considerable extent, on the statutory weight to be given to the resultant plan. A plan with more statutory import, particularly when it comes to impinging on private property rights, will need to go through a more rigorous statutory process.

But it remains an open question as to whether this relatively new, dynamic and adaptive type of planning lends itself (at least in the first few years) to a rigid statutory framework similar to that applied to RMA statutory

plans. As can be seen by the various spotlights on adaptation processes in this chapter, councils are tailoring the DAPP planning approach to their particular circumstances. This highlights that one size may not adequately fit all but leaves open the question of how many 'sizes' might need to be provided for. As one interviewee highlighted:

I think there are principles in DAPP that could be in law, about not creating lock in, not creating path dependency that doesn't enable you to make flexible choices over time as conditions change ... One of the problems is that we have had people not quite understanding what DAPP is and isn't. It's not a recipe, it's an approach. It's a framework to identify a range of options and you stress test them against different futures.

4.3 Initiation of planning process

Currently, climate adaptation planning is triggered by different drivers. Often it follows a particular hazard event, or series of events, which garner the public and council's attention. Such events don't even need to be in the area concerned. As recently stated in a joint regional and unitary council document, "Cyclone Gabrielle has been a wake-up call for everyone."²⁴

Adaptation planning can also follow on from a technical risk assessment which highlights a risk that needs to be addressed. In some cases, the risk has long been known, but new knowledge about the likely exacerbation due to climate change means it can no longer be ignored. The key question in a future adaptation planning system is what should be the trigger for such planning.

There are a number of options here. There could be a statutory trigger, and this is what has been proposed by the Expert Working Group, which recommends that LAPs be mandatory where a prior mandatory region-wide risk assessment and prioritisation exercise identifies an area as requiring adaptation planning. The Group also proposes that a Ministerial direction could trigger the Crown to require such planning, as could a request from a local decision-maker or iwi/hapū. Such direction would be through an Order-in Council.

A key question in policy design is whether the initiation of adaptation planning should require such formalised central government sign off, or whether councils, iwi/hapū/whanau and communities should be able to initiate adaptation planning processes themselves. There is a strong argument for some form of compulsion and/or inducement for councils to undertake such planning, if they have failed to do so when their



Sea defences at Haumoana, Hastings

communities are facing heightened risk. This would not necessarily need to be in the form of regulation, but could include such things as making available central government funding to support such planning initiatives (subject to specified criteria). But without any such policy, adaptation planning will be left to the vagaries of the political system, and the respective strength of various council budgets, with some areas likely to be well served with such planning and others missing out. There is also the issue of the ability of councils to respond to accelerating change. As one interviewee told us:

Councils need to be told they have to do it. Councils need to be told it is a requirement and you need to start doing it and here is a framework and some guidance.

4.4 Governance and plan-making body

Clear governance arrangements for adaptation planning processes will be important, particularly when it comes to the requisite roles of central, regional and local government and iwi/hapū. As EDS highlighted in Working Paper 2,²⁵ responsibilities for managing natural hazards under the RMA are unclear, leaving it to the regional policy statement to determine who is responsible for which hazards. A spotlight in that paper, of the Bay of Plenty Regional Policy Statement, indicated that responsibilities for different kinds of natural hazards can be split between councils,²⁶ potentially making an integrated approach to managing the cumulative impacts of different hazards on one location, problematic. Several interviewees highlighted this issue:

Responsibilities are split and we are muddling through.

It would be really helpful to have really clear governance arrangements that are linked explicitly to funding.

The Expert Working Group has recommended that a statutory adaptation committee provide governance over adaptation planning as well as acting as the plan-making body. As already indicated, this would be constituted of members from the regional council, applicable territorial authority(ies), appropriate iwi, hapū and Māori representation, and with an option for a Crown representative. For Māori-led planning there would be a Māori decision-maker.²⁷

A range of governance models have been adopted by councils. In the Whakaraupō Lyttelton Harbour/Koukourarata Port Levy adaptation planning project (described in the spotlight above) the Council established a coastal panel to oversee the project consisting of community and

rūnanga representatives. The panel has recommendatory powers only with the Council retaining final decision-making authority.

For the coastal adaptation pathways planning project on the Coromandel Peninsula (see spotlight below) a co-chaired joint council and mana whenua committee was established and given delegated authority to approve the plans. Four coastal panels oversaw the development of localised coastal adaptation plans.

Spotlight on the Coromandel Peninsula Coastal Adaptation Pathways project

In April 2019, the Thames Coromandel District Council initiated a three-year long shoreline management planning project for the Coromandel Peninsula, with the assistance of Royal HaskoningDHV. The project adopted a community-led DAPP planning approach. It was overseen by a co-governance committee, which was jointly chaired and comprised four representatives each from the Council and Pare Hauraki, and which had delegated authority to approve the resultant coastal adaptation plans. Four coastal panels were set up for specific areas with membership sought from mana whenua, community boards, community organisations, businesses and general citizens. Each panel oversaw the development of a series of more localised coastal adaptation plans within their area. The governance committee and panels were supported by a technical advisory group.²⁸ In addition, wide public engagement was sought.

Each coastal adaptation plan, which covered a focused local area (eg Cooks Beach, Buffalo Beach north and Wharekaho Estuary), included an evaluation of the risk, the identification of adaptation options and the development of an adaptation strategy. For example, at Cooks Beach the adaptation strategy is:

to maintain and rehabilitate the dunes through planting native species and managing access. With 0.2m of sea level rise, it is predicted that roads and some properties will begin to be affected by 1% AEP [annual exceedance probability] storm events. At this point, hazard affected properties should be raised, existing defences should be maintained and soft engineering measures could be taken to close gaps in the natural defences ... with 0.6m of sea level rise, in the longer term, flood events (larger than and including 5% AEP events) are predicted to affect many properties and other assets, particularly at the eastern end of the beach. This is likely to trigger the need for retreat.²⁹

The Council is in the process of developing an implementation plan through its long-term planning process under the Local Government Act. This will prioritise locations where short- and medium-term actions need to be taken as well as areas where further information is required. Actions include developing a plan change to place limits on inappropriate development and subdivision in hazard zones. The implementation plan will enable council resources and funds to be allocated to the prioritised actions.³⁰ A ten-year review process is envisaged, to align with the timing of the long term plan.

The susceptibility of the Coromandel Peninsula to climate-exacerbated hazards was highlighted during Cyclone Gabrielle in February this year when all major arterial routes out of the Peninsula were closed due to flooding, slips and other hazards.³¹

In the case of the South Dunedin Future project (see spotlight below), governance is jointly provided by the planning committees of the Dunedin City and Otago Regional councils, with the day-to-day operation of the project being driven by a City Council project management team. It is therefore a much more strongly council driven project than the others, albeit through a partnership between the regional and city council, and with rūnanga membership of council planning committees. This reflects the large vulnerable population and significant urban infrastructure affected by the hazard risk.

Spotlight on the South Dunedin Future programme

The South Dunedin Future programme is a joint initiative between Dunedin City Council and Otago Regional Council focused on addressing flooding and climate changes issues in South Dunedin. Governance of the programme is provided by the Dunedin City Council and Otago Regional Council planning committees, each which have two voting rūnanga positions for Ngāi Tahu. In this way, the governance arrangements for the South Dunedin project provide for the hapū (Kāti Huirapa Rūnaka ki Puketeraki and Te Rūnanga o Ōtākou).³²

The project is supported by a council executive steering group, programme coordination group and project management team (which drives the programme day by day). A Programme Advisory Group, which currently operates on an informal, ad hoc basis, includes mana whenua, community, academic/technical and central government representatives. This provides periodic advice but has no decision-making role.³³

The South Dunedin Future programme has a range of strategic objectives which not only seek to reduce the risk from flooding and other natural hazards, but also to ensure there is a just transition and no-one is left behind, lost natural environments are restored, cultural connections to places of significance are re-energised and urban form is improved so that South Dunedin is a better place to live.³⁴ The programme appears to be somewhat siloed from the consenting arm of Dunedin City Council which is still approving new residential units in the area (as described in the spotlight above) thereby potentially undermining these objectives.

Many South Dunedin residents blamed the council, which operated the aging stormwater system, for damage arising from the 2015 flood. Because of this low level of community trust in the Council, the Dunedin Future programme started off with a three year period of very extensive public engagement including holding more than 90 meetings and hui, as well as numerous face to face meetings.³⁵

The importance of including mana whenua around the decision-making table, in order to ensure their concerns are addressed, was highlighted by events at Matatā, where the Whakatāne District Council and Bay of Plenty Regional Council strongly drove the process. (see spotlight below).

Spotlight on Māori engagement in hazard adaptation at Matatā

Matatā is a small coastal town of around 600 people. Situated on the east coast of the North Island, it is the meeting point of Ngāti Rangitihi, Ngāti Awa and Ngāti Tūwharetoa ki Kawerau and their respective hapū. It has a predominantly Māori population (60%) and is home to three marae. Significant wāhi tapu are located at Matatā including battlefields and ancestral burial caves.³⁶

After debris flows damaged properties and infrastructure at Matatā, in 2005, the Whakatāne District Council embarked on a process to determine a response. With assistance from the Bay of Plenty Regional Council and technical experts, it developed a debris flow risk management plan which identified a range of options. In 2006, the Council proposed to install a 17-metre high debris dam in the catchment, in order to protect 57 houses located on the coastal fanhead.

Te Rangatiratanga O Ngāti Rangitihi formally objected to the proposal on the grounds that the site was sacred and the dam would damage

wāhi tapu.³⁷ It later became apparent that the Council had failed to make contact with Ngāti Rangitihī before deciding to go ahead with the dam and this likely meant that it was not fully informed as to the significance of the wāhi tapu sites.³⁸

As it turned out, by 2012 the Council had determined that the debris dam was no longer feasible due to uncertainty as to its effectiveness, a doubling of estimated construction costs, and the likely considerable cost of ongoing maintenance. It looked to retreat options instead. However, if mana whenua had been part of the initial adaptation planning body, Māori interests and concerns would have been an integral part of the initial scoping and assessment of options, and the dam option may have been excluded earlier. This could have helped avoid six houses being rebuilt in the high risk area, in reliance on the initial engineering solution, but which then needed to be removed once managed relocation was decided upon.

Alongside mana whenua, it will also be important for any planning body to include voices for nature. This could comprise representatives from an environmental NGO and/or the Department of Conservation. This will be particularly important to ensure that the environmental impacts of any protection strategies being considered are fully taken into account. As EDS highlighted in Working Paper 1:

From an ecological perspective, the adaptation response which is adopted in the face of climate and other risks is particularly significant. A resort to hard protection structures such as sea walls, groynes and breakwaters will often result in 'coastal squeeze' and adverse effects on indigenous species, ecosystem functioning and associated ecosystem services. It can also serve to raise community expectations around the provision of hard protection in the future. Many effects will be irreversible in practice, as the cost of fully rehabilitating areas impacted by hard structures will likely be prohibitively high.³⁹

Our interviews elicited considerable support for the idea of using community panels to drive adaptation planning, something that was also picked up by the Expert Working Group. As interviewees highlighted:

It needs to be citizen-led not expert-led. Climate change is a shared problem so let's get together to solve it, with the council facilitating it, supporting it and providing funding and experts in support.

Most councils have established community panels where representatives from the local community and iwi come together and

are supported by a technical advisory group to go through a process to develop options or pathways and make recommendations on preferred pathways to go back to council. The aim is to get buy in from the community and to get them to shape what the area should look like in the future. The council is the facilitator and enabler of the process.

A key question is what role community panels should have. Should they be in the driving seat of plan-making, as in the Coromandel Peninsula and Whakaraupō Lyttelton Harbour/Koukourarata Port Levy examples, or should they be used primarily as a community engagement tool, as contemplated by the Expert Working Group. A third option would be to use the panels to co-create adaptation plans alongside councils. Which option is most appropriate may depend on local circumstances. The precise composition of adaptation governance and plan-making bodies might best be left flexible so arrangements can be tailored to the affected locality. However, it will be important to ensure that enabling flexibility does not result in a failure to adequately address climate risks, or prolonged conflict over which process to use.

4.5 Technical support

Whoever is in charge of the adaptation plan-making process it is clear that considerable technical support will be required. Much of this currently resides in the private sector in the various consultancy companies. Some will be available within the relevant councils, recognising that regional councils hold much relevant technical expertise, but that territorial authorities have a closer nexus to affected communities. In addition, councils generally have closer relationships with mana whenua, although in some cases such relationships are 'broken'.

As can be seen from the spotlights on various adaptation planning processes, technical advisory panels are commonly used to support the plan-making body (particularly where this is a community-based coastal panel). This enables the relevant technical expertise from councils, central government, universities, scientific institutions and the private sector to be assembled in one place to support the project. It will be important that this includes cultural knowledge as well as ecological expertise.

Given the general lack of experience and expertise in Aotearoa New Zealand with adaptation planning, it may make sense to assemble a skilled body of people in a small national agency, which could then deploy its expertise to assist adaptation planning processes around the country. This could be housed in an existing agency (such as the Climate Change Commission, Environmental Protection Agency or MFE) or be a stand-alone entity.⁴⁰ An alternative would be to draw together experts from key

consultancies. Experts could be embedded within councils for the duration of the adaptation planning process. This would facilitate a two-way learning process, where the national experts would benefit from on-the-ground experience. This could also help to share learnings across councils and draw on international best practice. As one interviewee noted:

It would be good if someone from the national level came in to help council, which has people already on the ground, to go through the process.

A national expert entity or similar could also support and build on the work of the Aotearoa Climate Adaptation Network, which currently has over 200 members from 50 different councils, and holds regular webinars and annual hui to who share experiences on climate adaptation. As we were told by one interviewee:

The network provides invaluable learning from others who are doing the same thing. However it could be improved. It is a voluntary network run by a few of us.

There are also international networks of climate adaptation specialists that could be drawn on such as the network of Climate Adaptation Science Centers operating under the auspices of the US Geological Survey.⁴¹

4.6 Resourcing

However adaption planning is undertaken, it is clear that it will require considerable resourcing, not only to undertake the planning process itself but also to implement the provisions in adaptation plans. In Working Paper 2, we included a spotlight on the development of the Clifton to Tangoio Coastal Hazards Strategy.⁴² Although the process successfully developed a plan, it encountered difficulties when seeking funding for implementation and effectively ground to a halt at that point.

Our interviewees highlighted the resourcing challenges some councils are facing when contemplating adaptation planning:

For a start, we don't have people on the ground. We don't have a policy planner in our council.

There needs to be some funding mechanism to help councils to undertake research and engagement programmes.

Local government is best placed to support the local community but they can't do it alone. They don't have the skills and resources and sometimes they don't have the willingness or motivation to act.

The Expert Working Group proposes that the funding source should match the level at which decisions are made, but with central government providing grant funding for specific planned relocation projects and/or specific costs based on an ability of local government to pay basis.⁴³ In addition, the Group suggests that funding agreements might be reached in terms of implementing actions in the plans, similar to how implementation agreements are provided for under the SPA, which are to identify funding sources for implementation amongst other things.⁴⁴ Targeted rates may be one source of local funding, being already used for some protection works benefiting private landowners (eg Waihi seawall).

Financial support could be provided through the establishment of a national adaptation fund from which councils could access funds to undertake adaptation planning (including undertaking the requisite local risk assessments) as well implementation of the plans. This would replace the current ad hoc funding arrangements. Such an approach was supported by the Future for Local Government Review Panel which recommended the establishment of an intergenerational fund for climate change which would support climate change adaptation efforts across the country.⁴⁵ As stated by one interviewee:

If there was a fund linked to criteria it would drive councils to do more adaptation planning than at the moment ... Creating a fund would be helpful in getting the ball rolling.

Access to such funding could be on the basis of meeting certain criteria, including minimum requirements for the process to develop adaptation plans (including adequate engagement with iwi/hapū) and consideration of the full range of adaptation options including managed retreat. Adequate measures to assist nature to retreat along with people should also be a requirement. Funding to implement adaptation plans could also be linked to criteria as to their content and quality. There could be a specific fund targeted at iwi/hapū-led adaptation planning. As interviewees stated:

You could put rules around how funding was dispersed and put in place guardrails to guard against maladaptation.

They come up with a plan and it then goes up to central government for some process they have tied to funding and implementation with clear rules around the split of funding. This needs to be clearly tied to affordability across a region.

Inevitably, demand for funding will outstrip supply which means that criteria for determining funding priorities will need to be developed. These will need to ensure that preference is given to funding managed

retreat, where this is the most cost-effective long-term solution for the community, rather than shorter-term protection works that may be maladaptive. Protection works often provide only short- or medium-term protection (and can sometimes make the problem worse), are usually expensive and require costly ongoing maintenance, and often have negative cultural and environmental impacts. The spotlights below on natural hazard adaptation in Westport and Franz Joseph highlight these issues which future adaptation policy will need to address.

The spotlights also illustrate the problem of relying on ad hoc funding for adaptation measures, which is often granted in the wake of a disaster event, and not based on carefully thought out criteria which could be applied to a national adaptation fund. In the case of Westport, for example, there was concern amongst central government agencies (including Treasury) that central government providing ad hoc funding for flood protection works could create a precedent with associated significant fiscal and moral hazard risk.⁴⁶

In Franz Joseph, the nationally funded stopbank solution appeared to ignore the significant earthquake risk the town was also facing, as well as the broader cascading risk to the country's tourism industry. Both spotlights indicate the urgent need for stronger criteria as to how



Whakaari White Island where the twenty tourists who died in the 2019 eruption were not informed about the foreseeable eruption risk

government funds adaptation. The current approach appears to be incentivising short-term solutions, which focus on addressing single risks, rather than implementing more robust and holistic long-term solutions. There is also a risk that most of the available funds will go to those places where disasters have already occurred, rather than to pre-emptive relocation initiatives.

Both case studies highlight the limitations of relying on local decision-making which can be dominated by the vocal few, unless there is strong national direction, and funding arrangements that are based on rigorous criteria and high-quality analyses of the options.

Spotlight on the Westport Recovery Plan

Westport, a town of some 4,600 people, is located on a low-lying narrow floodplain surrounded on all sides by a combination of the Buller and Orowaiti rivers and the sea.⁴⁷ The population is aging with incomes just 68 per cent of the national mean. GDP has been declining over the past decade.⁴⁸ In 2018, cyclone Fehi devastated the area and, in 2021 and 2022, the town experienced further flooding from heavy rains. The July 2021 event resulted in over 2,000 people evacuating and 563 properties (23 per cent of the town's total housing stock) being damaged. Insurance claims reached \$88 million.⁴⁹

Flooding of the town has been exacerbated by high tides surging up the Buller River and into the Orowaiti lagoon. Such surges, and the current high groundwater level, will increase with the rising seas caused by climate change. These factors, along with ongoing land subsidence, will exacerbate future flooding events meaning that much of Westport will be unsafe for people to live in without intervention. As recently stated by the Department of Internal Affairs, "Westport is one of the most vulnerable communities exposed to flood hazard in New Zealand".⁵⁰ And this is not the only risk affecting the town which is also vulnerable to seismic risk (with a 75% probability of the Alpine Fault rupturing during the next 50 years), liquefaction, coastal inundation and tsunami.⁵¹

It is notable that despite this serious situation, weak district plan rules still allow development in Westport's flood prone areas, thereby further exacerbating the current high natural hazard risk.⁵² In addition, although central government has contributed around \$100 million to flood response and recovery in the Buller district since 2020, the funds have been largely spent on immediate disaster recovery and infrastructure repair rather than on reducing future hazard risk to the community.⁵³

In response to this growing risk, the Buller District Council, West Coast Regional Council and Te Rūnanga Ngāti Waewae jointly developed a business case for central government co-funding to construct flood protection works and other risk mitigation measures. The main element of the proposal was the construction of a ring bund around urban Westport (see Figure 9). The Buller District Council proposes to enable new buildings and alterations to existing buildings within the area protected by the bund in its proposed district plan, on the basis that the bund will sufficiently reduce the natural hazard risk.⁵⁴ However, this would increase the number and value of properties at risk in the event that the bund no longer provided sufficient protection.



Figure 9: Proposed ring bund around Westport Source: Buller District Council, West Coast Regional Council and Ngāti Waewae Arahura, 2022, *Co-investment in Westport's resilience*, Westport, 48

Although the joint business case acknowledges that “It feels as though retreat is likely to happen at some unspecified time in the future”, and it identifies “several areas of land outside the flood zone where Westport might grow in the future”, it only includes initial and

tentative steps in that direction. The business case looks to undertake a feasibility study of the land where a new community might be established (at Alma Road).⁵⁵

The business case acknowledges that Buller District Council “does not have the resources to draft a development plan – let alone a ‘structure plan’ for the Alma Road area. Nor does the Council have the resources to undertake the level of infrastructure planning necessary for a high quality, resilient and sustainable ‘community-centred’ development”.⁵⁶ This highlights the likely necessity of considerable central government

support to help at least smaller councils to undertake the necessary planning to move down the pathway of managed retreat.

The difficulties of relying on an engineering solution to the significant risk issues facing Westport was highlighted in a review of the Business Case, undertaken by the Department of Internal Affairs in 2022, which contracted Tonkin and Taylor to consider the technical feasibility of the ring bund. The Department usefully summarises the conclusions of that feasibility assessment in Table 2 of its assessment report, which includes the following points:⁵⁷

- Conceptually, the ring bund around urban Westport functions as a ‘bathtub’. For smaller (more frequent) flood events it should provide protection by keeping the water out. However, failure of the wall during a large flood event would result in the town being rapidly inundated with water (as happened in New Orleans during Cyclone Katrina).⁵⁸ This exacerbates the residual risk to life and property for the larger events above the ‘do nothing’ scenario.
- The ring bund will increase peak flood levels at the Buller Bridge by 600mm, significantly increasing the risk of a bridge blockage and overtopping of the Westport flood defences upstream of the bridge. This would have significant implications for evacuation as the bridge is the only route out of town for a large flood event. (Notably in Hawkes Bay six bridges were destroyed by raging floodwaters due to the heavy rain caused by Cyclone Gabrielle).⁵⁹
- The protection proposals are not resilient to seismic events [which have a high risk of occurring within the lifetime of the protection works] and the proposal is not ‘multi-hazard resilient’ (ie being solely focused on overland flood risk).
- The seven ‘protect’ options considered prior to the selection of the current proposal were different iterations of the same conceptual design (full encirclement of Westport). The proposal had not

considered a wider spectrum of protect options (such as partial or targeted protection).

One of the deficiencies with the ring bund solution, is that it does not address other natural hazard risks, including those from the Alpine Fault and flooding from rising groundwater which will be exacerbated by sea level rise and increasingly heavy rainfall events. To address the groundwater flooding issue, the joint business case proposes an investment of \$12 million into stormwater pumps with \$8 million of this sought from central government.⁶⁰ However, no government funding was provided for this aspect of the plan, leaving residents within the bund still vulnerable to such flooding. And such flooding may presumably be exacerbated, if the floodwaters rising within the town have reduced natural outlets for dispersal once the town is encircled by defences, on the principle that what keeps water out will also keep it in.

Despite such concerns, in June 2023, central government approved funding of \$22.9 million to support natural hazard adaptation in Westport including \$15.9 million for the proposed ring bund. Only \$750,000 (3%) of the total was earmarked to pursue managed retreat options, including \$500,000 towards a development plan for Alma Road and \$250,000 for a feasibility study into strategic land purchase at Alma Road or other low risk sites.⁶¹ It was not clear whether further money would be forthcoming to assist with the purchase of land at a relocation site, and no money was specifically set aside to assist owners of flood-risk properties not proposed to be within the bund walls (such as the recently developed Snodgrass neighbourhood), although some general flood relief funding may be available. Interestingly, a case study on Westport in order to “explore co-investment for flood resilience” is identified in the National Adaptation Plan as a critical action.⁶²

The adaptation planning process has been a far cry from a best practice DAPP approach. As *Newsroom* Journalist Marc Daalder highlighted in his article on Westport,⁶³ there had been little community engagement on adaptation options before funding was sought and obtained from the government. This was ostensibly because the councils wanted certainty on what the final plan would look like before going to the community (as opposed to the community being involved in the development of the plan itself). The communication blackout also appears to have affected private property owners whose land may be required for the construction of

bund walls. As West Coast Regional Councillor and Westport resident Frank Dooley was reported as acknowledging, “From the point of view of our residents, it’s a total lack of communication”.⁶⁴

Perhaps more worrying, is that such a large sum of public money has been granted in the absence of any engagement with the local community, or with the broader general public (the taxpayers) who are footing the lion’s share of the bill. The money has also been provided without the development of any longer term plan for the future of the town. As the Mayor of Westport was recently reported as stating:

At the moment, there is no master planned spatial plan for where a future Westport would grow or should grow or any levels indicating where we should or shouldn’t build cognisant of the risks that we now know about.⁶⁵

Spotlight on managed relocation of Franz Josef

Franz Josef is a small town of around 500 people located adjacent to the Waiho River. Its proximity to the Franz Josef glacier and the Te Wahipounamu World Heritage site has meant that the town is strongly reliant on tourism for incomes and jobs. In the year to March 2017, the town had 263,000 visitors and 553,000 visitor nights.⁶⁶ Ngāi Tahu is recognised as tangata whenua of the area and Runanga o Makaawhio is the local rūnanga.

The Waiho river brings down tonnes of gravel and sediment from the rapidly eroding Southern Alps, which has raised the riverbed next to the township by around a metre every five years.⁶⁷ This has meant that parts of Franz Josef are either lower or at the same level as the riverbed (including the developed northern end of the town). Large stopbanks have been built in an attempt to protect the town from flooding, but their effectiveness is continually eroded by the rapid aggradation of the riverbed. This means that flood risk is ever increasing.⁶⁸

As it turns out, it is the stopbanks themselves that are the main cause of this rapid aggradation, as they constrict the ability of the river to discharge its load over the Waiho fan.⁶⁹ Climate change is likely to only make this situation worse with more intense rainfall events. One estimate is that, in 30 years’ time, the riverbed will be six metres higher and the town will have effectively become part of it.⁷⁰

In March 2016, the river broke its banks severely flooding the Scenic Circle Hotel and the town's wastewater treatment ponds. Over 100 tourists had to be evacuated.⁷¹ There was another flood in 2019 where the river burst its banks and flooded the rural Waiho Flat community. In 2021, the Ministry of Business, Innovation and Employment (MBIE) approved \$9 million from the Provincial Growth Fund to strengthen and raise the stopbanks on the north side of the Waiho river as part of the government's Covid-related shovel ready projects.⁷² A further \$3 million contribution was expected from ratepayers.

The actual work was then delayed due to a legal stoush between the insurer of the Scenic Circle Hotel and the council, with the insurer claiming \$30 million in damages and alleging that council work on the stopbank (which may have lacked the requisite consent) had worsened the flood impact on the hotel.⁷³ The legal proceedings have only recently been settled.

Similar to the case in Westport, the stopbank project has not factored in the fact that flood risk is not the only natural hazard challenge the town is facing. In the case of Franz Josef, the town has been built right over the Alpine Fault. This is the most active land fault in the country and there is a 70 per cent likelihood that the fault will rupture within the next 50 years. When it does go the impact is likely to be very large, with an 82 per cent chance that the quake will be greater than magnitude 8.⁷⁴



Downtown Franz Josef which spans the Alpine Fault and is also threatened by flooding from the Waiho River

With the town's petrol station, fire station, police station and community hall located right on the edge of the fault, and with houses, hotels and retail stores (including the town's supermarket) sitting in a high hazard area, the impacts of the Alpine Fault moving will almost certainly be disastrous for the town. As a Victoria University study warned, "Parts of Franz Josef could disappear into eight-metre wide crevasses".⁷⁵

Despite this evident serious risk, the Westland District Plan does not identify any 'fault avoidance zone' to prevent new or intensified development locating in the high-risk area. This is despite technical work undertaken in 2011 to map such a zone, which indicated that it would run right across the centre of the township, including an area where tourism accommodation actually straddled the fault scarp (see Figure 10).⁷⁶

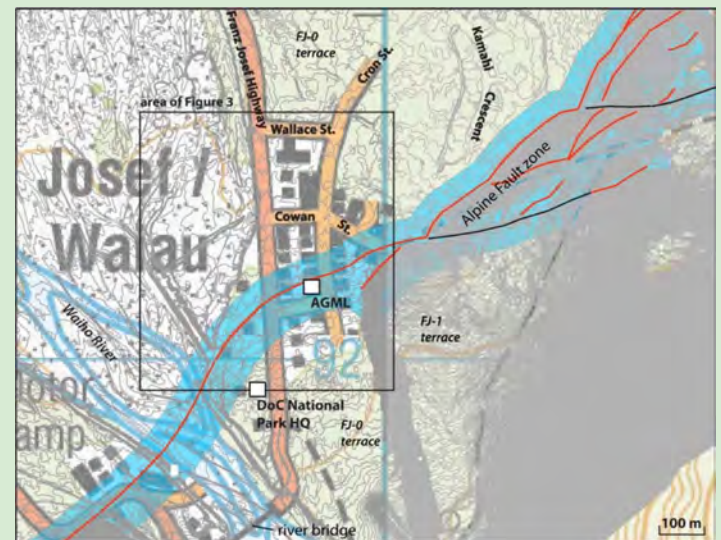


*Figure 10: Fault avoidance zone mapped for Franz Josef in 2011 (red line - reverse fault, blue shading - proposed fault avoidance zone, AGML - Alpine Glacier Motor Lodge) Source: Langridge R M and J G Beban, 2011, *Planning for a safer Franz Joseph-Waiau community, Westland District: considering rupture of the Alpine Fault*, GNS Science, Wellington, 19*

In response to the study, the Westland District Council initiated Plan Change 7 to create a fault avoidance zone where no new buildings could be constructed and work on existing properties would be constrained. It affected around 30 properties.⁷⁷ After hearing submissions, the council adopted the plan change in 2015, but property owners appealed the council's decision to the Environment

Court. When a new council was elected in 2016, it quickly dropped the plan change. In explaining this move, councillors were reported in the media as stating:⁷⁸

It should never have been there in the first place. Let people make their own decisions and get on with their lives.

There are fault lines around the country. When it eventuates is bad luck.

A subsequent report described the likely cascading impacts on Franz Josef when the fault ruptures. As well as the direct effect on affected properties:

A rupture event could also result in a range of potential cascading effects including liquefaction, lateral spread and minor to catastrophic landslides, which could potentially inundate the town and/or the Waiho or Callery Rivers. Consequentially, the river(s) flow could be dammed, allowing water to build up to the point at which it presents an additional flooding hazard.

The impacts on the township could therefore include significant injury and potentially loss of life, as well as significant damage to property and the environment. Road access to and from Franz Josef could be closed from months to a year, due to bridge collapse and landslide inundation of the routes to the north and/or south. This would affect local tourism, with flow-on effects in the Region and nationally.⁷⁹

When considering the community's appetite to bear such risk, it is interesting to ponder whether tourists, if they were fully apprised of the risk, would choose to spend the night in Franz Josef. One of the claims in the wake of the 2019 Whakaari White Island eruption, which killed 20 tourists, was that they were not given any warning about the eruption risks and so could not make an informed decision as to whether they wanted to take the risk or not. The eruption, although not predictable, was foreseeable⁸⁰ as is the case with the rupture of the Alpine Fault.

It was only recently, in August 2023, that work on the stopbank strengthening project was formally put on hold so there could be a rethink about the best solution for the town.⁸¹ A risk reassessment had indicated that the town may have only 20 years left in terms of flood protection as the rate of river aggradation appeared to be increasing.⁸²

There is now a proposal to remove the stopbanks on the south bank of the river to allow it to flow into its natural alluvial fan to the south, while the town is gradually moved north and away from the river and fault line. Around 60 to 70 people live on the south side of the river, and the cost of buying them out was costed at \$22 million in 2017, so the council has again turned to central government for the requisite funding. There is the prospect of repurposing the \$9 million of national funding set aside for the stopbank work which fortuitously has not yet been expended.

4.7 Status of adaptation plans

Adaptation plans could be non-statutory (as is the situation now) or could have some statutory status. If they have statutory status there could be a sliding scale of importance, from being something to be only considered in other decision-making, to being determinative of what will happen.

The benefit of non-statutory plans is they can be flexible and tailored to community needs. They can also include thinking 'outside the square'. However, there is no certainty that non-statutory plans will be implemented. A future council could decline to implement parts of the plan, particularly when it comes to the more expensive and contentious issues such as managed relocation. As one interviewee highlighted:

The plan will have no statutory weight so the next council can choose not to implement what is in the plan. Local government is not structured to make expensive long-term decisions as everyone wants to keep rates low and get re-elected.

There is also the issue of monitoring the plans, in order to identify when triggers are being approached, which may necessitate managed retreat. As one interviewee explained:

It's such a can of worms. Even if you know what the indicators are you want to measure, we are finding it a really resource heavy piece of work. And how do you set them at the right time? Even if we want to measure certain things, who in council measures it? And how does that link back to the adaptation plan which might be 10 years old and sitting on the shelf. And who realises that it is a threshold in the coastal adaptation plan, that has no statutory weight, and does something about it?

All these issues indicate that some form of statutory recognition for adaptation plans would be helpful, including a statutory obligation to monitor them against indicators and triggers.

The Expert Working Group has recommended a strong statutory status, to the effect that adaptation plans would override plans under the RMA/NBEA through the mechanism of an adaptation designation. The designation would negate the need for a resource consent for adaptation works such as a seawall or floodbank. It could also authorise changes to land-use activities and the application of specific rules to manage land use.⁸³ Giving adaptation plans such strong import has been coupled with a robust and semi-judicial process for their finalisation, as described earlier.

One potential issue with the Expert Working Group's approach to implementation of the LAP, is that this would not necessarily need to comply with the environmental protections under the RMA/NBEA, including environmental bottom lines and national direction (such as the NZCPS). This would be through the use of an 'adaptation designation' which would take precedence over the SPA and RMA/NBEA in authorising works. This is a particular issue with coastal protection works, which can have very significant environmental impacts, as EDS set out in Working Paper 1.

We note that the Expert Working Group recommends that the adaptation designation not override Part 1 of the NBEA,⁸⁴ which includes the purpose of the Act and the system outcomes. However, that Part does not include the national planning framework or environmental limits which are critical to maintaining and improving the quality of the natural environment. We suggest that any protection works be required to obtain resource consent under the RMA/NBEA in the normal manner, alongside any adaptation designation, to ensure they are given proper environmental scrutiny. Given that many of these works will be planned for the future there should be ample time for consent to be obtained. There are also fast track procedures that can be used if needed.

Other options for the statutory status of adaptation plans include linking them to (rather than overriding) regional and district plans, linking them to national adaptation planning under the Climate Change Response Act, and/or providing adaptation plans with recognition under the Local Government Act with a consequent closer linkage with council annual planning and budgeting. These are not necessarily alternatives, as adaption plans could have interfaces with multiple pieces of legislation.

In terms of RMA/NBEA plans, these could incorporate local adaptation zones where the rule status is determined by specified triggers. For example, once coastal erosion reached a certain point a new and more restrictive rule status could automatically apply to development within the zone.

Given the relative newness of adaptation planning in Aotearoa New Zealand, a stepwise approach might make sense, where adaptation plans are given legal recognition if they meet specified criteria, and are then paid particular regard to under RMA/NBEA processes. As more experience and capability is built up, the legal recognition could later be strengthened along with the application of a more formal planning process. A formal 10-yearly review cycle could ensure that early planning was updated as necessary.

Another variation along this theme would be to provide two tracks, one where the process is strongly mandated and the resultant plans have strong statutory effect (like the model proposed by the Expert Working Group) and another track where the process is left more fluid and the plan has less influence. A council could choose which track to adopt depending on the local context, or national criteria could determine which track is to be used.

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5 Compensating and acquiring properties



Various sea defences at Milford Beach, Auckland

Property ownership plays an enormously important role in Aotearoa New Zealand society. As we noted in Working Paper 2:

The importance placed on the ownership of land in Aotearoa is highlighted by the indefeasibility of title, where the registered owner of land (as shown on the property title) is protected against all claims that are not so registered, as well as a state guarantee as to the accuracy of the registered rights. No other form of property right is backed up with such state protections.¹

However, this high status does not mean that the state cannot ‘take’ land from property owners for public purposes. The Supreme Court has confirmed that “New Zealand law provides no general statutory protection for property equivalent to that given by the eminent domain doctrine under the Fifth Amendment to the United States Constitution, under which taking of property without compensation is unconstitutional and prohibited.”²

This means that property can be compulsorily acquired for managed retreat purposes in Aotearoa New Zealand, without full or any compensation, so long as the acquisition is clearly authorised under statute. However, where the statute leaves room for any doubt, the courts will infer an obligation to pay fair compensation.

Any managed relocation policy will almost certainly require public bodies to voluntarily, and in some cases compulsorily, acquire private properties. However, as we found in Working Paper 2, there is currently a gap in

the legislative framework when it comes to powers to compulsorily acquire land, and in providing a framework for compensation which accommodates the circumstances of managed relocation.

The Public Works Act 1981, which is the prime legislative tool currently available, is unlikely suitable due to its current limited scope (ie focused on public works) and compensation provisions (which set compensation at market value at the time the property is transferred). A tailored regime setting out compensation provisions for managed relocation is almost certainly required. This could be achieved either through amending the Public Works Act to explicitly provide for managed relocation (with appropriate compensation provisions), amending the Local Government Act in a similar manner, or providing for acquisition in a new Climate Adaptation Act.

These are not exclusive options and it may be that several pieces of legislation may need to come in to play. As stated by the Expert Working Group:

While we do not think the PWA [Public Works Act] is fit for purpose to implement planned relocation, it will still be relevant in the context of risk reduction. For example where acquisition of land is necessary to build flood defences (a public work) then the PWA process should be used.³

The potential problem with this approach is that the line between managed relocation and flood defence may not always be clear cut, particularly if managed retreat of some properties is the mechanism through which better flood defence is provided for others. There is also the potential for funding inconsistencies and injustices within local communities, if those who lose their land under the Public Works Act (such as for the construction of a stopbank) receive compensation based on fair market value while those who lose their land under the Climate Adaptation Act (for managed retreat) receiving only partial or zero compensation, depending on the compensatory framework. Overall, this suggests that any acquisition powers in a Climate Adaptation Act will need to have broad application.

Special considerations will need to apply to Māori land. The different types of such land include Māori customary land, Māori freehold land, Māori reservation land, general land owned by Māori, Treaty settlement land and marine and coastal areas (Takutai Moana).⁴ In Working Paper One we discussed the inherent connection of Māori to land. By acknowledging and accepting that the whenua is a foundational aspect of Māoridom, it is possible to appreciate the improtant role of Māori in protecting the whenua for future generations.

Māori are uniquely placed in this respect, having established protocols via tikanga and other frameworks and values such as kaitiakitanga, to look after the land. These enable the people to both adapt on the land and determine management and protection of taonga (including land) into the future. It is a framework that is consistent with the concepts of community-led adaptation.

“The special status of Māori land recognises the relationship of Māori with their whenua and gives rise to customary interests beyond those of general land ownership. Māori should retain ownership of their land, but Māori and the Crown will need to explore measures to ensure risks can still be reduced.”⁵

Special consideration will need to be given to Māori land that is particularly vulnerable to climate change impacts. If communities are forced to relocate from such land due to climate hazards, Māori will need to retain ownership and an ongoing conection to the land (including access). Treaty settlement land will need to be addressed on a case by case basis. Much of the returned land has been of low value, and is of high risk of climate related impacts, locking Māori into marginal land with a limited ability to derive an income from it. Consequently, at risk Māori communities can

often not afford insurance premiums, that are ironically higher than other parts of the country if they are able to access insurance at all.

In Figure 11 we have set out some options for property acquisition more generally, which we discuss further below, including those related to voluntary acquisition, compulsory acquisition and compensation.

Element	Options
Voluntary acquisition	Individual property purchase Cluster purchase Advance purchase Land swap
Compulsory acquisition	Public Works Act Local Government Act Climate Adaptation Act
Compensation	Full Capped (eg average house prices) Means tested Time-limited (eg only applies to properties purchased before a certain date) Only owner-occupied

Figure 11: Options for property acquisition and compensation

Spotlight on the recommendations of the Expert Working Group on property acquisition and compensation

The Expert Working Group has developed detailed recommendations on a potential compensation scheme for managed retreat. The Group recommends that the Public Works Act not be used to implement planned relocation but that powers of acquisition be coupled with powers to pay compensation in new legislation. In addition, the Expert Working Group recommends that for compensation:

- Principal places of residence be treated differently to second homes, commercial buildings and short term rental properties, and market value be used with a cap
- Payment to commercial properties be based on need

- Payment to residential rental properties be less than owner-occupied properties but more than commercial properties
- No compensation be provided for second homes
- Full compensation be provided for not-for-profit owned buildings
- Compensation for land be provided on the same basis as under natural hazard legislation

For iwi, hapū and Māori owned property, case-by-case negotiations would be held, with a starting point of full compensation.

The Group recommends that a 'one-stop' advisory service be established for affected communities, and that the scope of the New Zealand Claims Resolution Service be expanded to include issues associated with managed relocation. It contemplates central government mainly paying for property compensation. The report canvasses different methods of raising the required funding including a special levy and taxation and suggests that periodic deposits could be made into a dedicated fund as currently occurs for superannuation with the New Zealand Superannuation Fund known colloquially as the 'Cullen Fund'.

5.1 Voluntary acquisition

There is a wide variety of approaches that could be used to voluntarily acquire property for the purpose of managed relocation and we canvass just a few in this section. They build on a series of spotlights which profile different ways that acquisition has been approached.

To date, virtually all property acquisition for managed retreat in Aotearoa New Zealand has been undertaken on a voluntary basis, albeit sometimes with an implicit threat of compulsory acquisition in the background. This has even been the case even when compulsory acquisition powers have been available (such as through special legislation in Christchurch) and some property owners have declined the voluntary offer (as in the Christchurch red-zone). This serves to highlight how reluctant governments have been to force people out of their homes and emphasises that voluntary acquisition is likely to be the main (although not necessarily the sole) approach in future managed relocation efforts.

One project where voluntary acquisition has been particularly successful is Project Twin Streams, in West Auckland (see spotlight), where considerable

effort was put into clear communication and providing a supportive environment for affected property owners to decide whether or not to take up the offer. This was coupled with a carrot, in the form of a buy-out offer that was effectively higher than market value, because it didn't take into account the flood risk which council had tagged onto the affected property LIMs. The carefully thought-out communication strategy in the Project Twin Streams project can be contrasted with some of the early communication to Christchurch red-zone residents where, as the Controller and Auditor-General reported:

Some early decisions about the future of residential areas, such as the red zoning of areas, were announced through the media before all property owners had been contacted and informed about the decisions. This caused distress to some homeowners.⁶

Spotlight on voluntary purchase for Project Twin Streams, West Auckland

Project Twin Streams was an ambitious project, which sought to address stormwater and flooding issues within a large catchment in West Auckland, housing over 100,000 people. The project focused on restoring natural stormwater flow paths, by removing properties from flood plains, and improving river quality through replanting riparian margins. It also sought to improve public amenity including through the creation of 8.5 kilometres of walkways and cycleways. All this required the purchase of around 80 residential properties. A flexible approach was taken to property acquisition, with some initially targeted properties being later dropped from the project, due to financial or practical considerations.⁷

The project was funded by a \$39 million grant from Infrastructure Auckland of which \$19 million was allocated for property purchases. In acquiring the properties, Waitakere City Council decided not to use the compulsory acquisition powers in the Public Works Act, but to only purchase on a voluntary basis. In order to achieve this, the Council focused on engaging the right skills for the negotiating team, and providing clear communication to property owners so they could "reach their own understanding of how the decision to purchase was really the only practical option".⁸ A flexible approach was adopted to meet the needs of each specific property owner. This included, in some cases, making arrangements to rehouse people.⁹

Each owner was informed that, after contact had been made by the council team, an indicator would go on the LIM showing that the property was in the flood zone. Negotiations were then undertaken over price, which was based on the market price prior to the LIM tagging, which potentially reduced the market value.¹⁰ The fact that

the owner was able to potentially get a higher price by selling to Council, than would then be available on the market, acted as a further inducement to sell.

One of the broader benefits of the project has been the mobilisation of the community which has been actively involved in community planting days, learning activities, art events and community and rongoa gardens. In total, 885,085 native trees and shrubs had been planted since the project commenced in 2003, and 70,000 volunteer hours have been donated to streamside improvement.¹¹

As well as reducing flood risk and increasing water quality, the project has improved community amenity and strengthened community cohesion. It is an example of how targeted voluntary purchase, done well, can achieve a broad range of benefits in a cost-effective manner.

Fortunately, in the case of Project Twin Streams, the bulk of the targeted property owners agreed to sell, and the council was able to proceed with its flood reduction works. However, if more property owners had refused the offer, the council may have been left with a disconnected assortment of properties that would have stymied strategic river works. In the New Jersey Acres Programme (see spotlight below), this problem was addressed by only offering buyouts to clusters of homes, on the basis that the purchase would only go ahead if all home owners in the cluster agreed.

Spotlight on cluster purchase in New Jersey

The New Jersey Blue Acres Programme aimed to reduce flood-risk, by establishing inter-connected restorations areas that provided greater space for flood waters, thereby reducing risk to remaining homes. An interesting aspect of the programme is that it required clusters of homes to be purchased at the same time (to provide a cohesive restoration area) rather than properties being bought one at a time. As the buy-outs were all voluntary, it required groups of home owners to collectively agree to be bought out, presumably bringing into play group pressure on any holdouts. See Part Two of the working paper for a more in-depth description of this case study.

Another approach to purchasing properties is to start well in advance and purchase them on the open market when they come up for sale. This could work particularly well in places where there is high property turnover, and avoids the need to persuade people to leave their homes, as they have effectively already decided to go. Such an approach has been proposed for South Dunedin (see spotlight below). Strategic purchase of properties, well in advance of managed retreat, also enables the council to implement a broader range of adaptation responses. However, care would need to be taken to ensure that the purchases do not artificially elevate the market value of the properties above a price that factors in flood risk and normal market demand.

Spotlight on proposed advanced property buyout, South Dunedin

As highlighted in the South Dunedin spotlight above, the suburb faces severe and increasing flood risk from rising groundwater, and some residential properties will eventually not be habitable. It is also the case that half the properties in South Dunedin have been sold at least once in the past 10 years (see Figure 12).

One option that is being explored by the Dunedin City Council is to strategically buy up properties in the suburb when they come up for sale on the open market. It could then rent some of them out, in the short- to medium-term, to help recoup costs (and potentially keeping the same residents in situ as many properties are already rented). As the flood risk becomes worse, the council could then remove the houses to create hard or soft (ie nature-based) flood protection infrastructure.

The Council could also buy up properties in safer higher areas (ie on the marine terraces) and use them to create additional housing options through more intensive townhouse development. In this way the urban form of the suburb could be gradually transformed with minimal disruption to residents. As more and more properties are bought up by Council, residents would be gradually shifted into more intensive and safer housing, without having to leave the suburb. The developed properties could be resold by the Council as a further way to recoup the initial property purchase costs.

The Council has approached central government for support for a five year purchase scheme, costed on the basis that 65 properties will be purchased a year on the open market, at a projected cost of some \$132 million. The advantage of this approach is that no-one will be forced out of their homes and it will likely save ratepayers and taxpayers money in the long term.¹² As Dunedin mayor Jules Radich explained:

If we start acquiring property today, it will give us more options tomorrow, meaning we'll be better placed to build a new pipe, expand a pipe, or move a house whatever is required to make South Dunedin a safer and better place to be... Our proposal is proactive and ambitious ... [and] will require support from central government.¹³

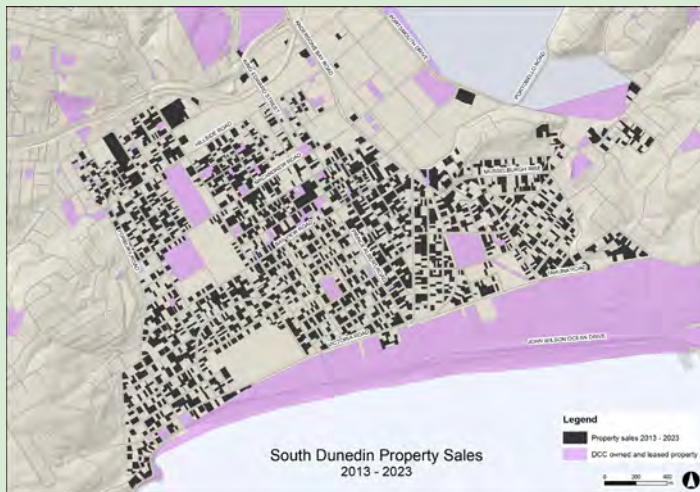


Figure 12: South Dunedin property sales 2013-2023

Source: Dunedin City Council

The concept of ‘climate leases’, which we canvassed in Working Paper 1, is another way that property purchase can be undertaken well in advance of the need for managed retreat. Under that approach, property owners sell their freehold interest in the land, and are granted a time-bound leasehold interest which enables them to continue to live in the property while it is still safe to do so. The lease could also be sold to another party if the incumbent wished to move.¹⁴ There are likely to be a number of challenges with applying this approach¹⁵ and it may be more appropriate where there is some certainty about the timing of the natural hazard risk being faced, such as with coastal erosion, and a pre-determined trigger when the property needs to be vacated.

Yet another approach to voluntary purchase is the use of land swaps, where property owners can swap their risky land for another similar plot nearby. Such an approach enabled the Queensland town of Grantham to be quickly moved after serious flood damage (see spotlight below). A similar approach was used in Aotearoa New Zealand, during the 1970s, after the Ōhiwa spit rapidly eroded and houses started falling into the sea. The Crown offered to swap property titles at Ōhiwa for vacant sites at Matatā, enabling the threatened houses to be moved to new sites. The offer was voluntary, with about 10 property owners taking it up.¹⁶

Such an approach might be particularly appropriate, in a managed relocation situation, where most houses are able to be relocated (such as when they are built on piles rather than concrete pads). In such a case, support may be required to cover removal and reinstatement costs. Alternatively, if relocation occurs after damage from a natural hazard event, insurance payouts could be used to construct replacement houses on the new sites.

Spotlight on land swaps in Grantham, Queensland

In 2011, a flash flood inundated the small town of Grantham during the wider Queensland and New South Wales (NSW) floods. After concluding that it did not make sense to rebuild the town in its current flood-prone location, the council bought a new site on a hillside adjoining the town, and rezoned it for urban use (under fast-track reconstruction legislation). Owners of properties damaged in the flood were eligible to participate in a lottery which enabled them to swap their current property for one of a similar size in the newly developed area. The specific site was determined by the lottery. Residents were required to remove all their existing buildings before vacating their damaged land. The cost of reconstruction on the new site was largely paid by insurance.¹⁷ See Part Two for a more in-depth description of this case study.

Another potential inducement for property owners to voluntarily sell is to withdraw services and/or adopt a user pays charging system for those that remain. An offer to buy out could be accompanied by clear communication as to what services will continue to be provided in the area after managed relocation has been undertaken, and at what cost (assuming the remaining property owners may be required to cover the full cost of continued service provision). The expense incurred by Christchurch City Council, in continuing to service those remaining in the red-zone (as highlighted in our spotlight in Working Paper 2), demonstrated the very high cost per

property of continued service provision to a few.¹⁸ As one interviewee highlighted:

In terms of removing services like water and roads, good direction early is important so that people know there is a possibility that services would be reduced or removed.

Voluntary purchase may be further incentivised by the withdrawal of insurance cover. Already the country's largest insurer IAG (which operates the NZI, State and AML insurance brands) has indicated that it will not provide *new* insurance for flood-prone and landslip-threatened homes rated as either category 2 or 3 after the Auckland Anniversary floods and cyclone Gabrielle. It will also not *renew* insurance on category 3 homes and the worst of category 2 homes, although cover will continue until owners are bought out under the government/local government buy-out offer.¹⁹ Such an insurance withdrawal will make it very difficult for many home owners to stay in their homes or sell, as if there is a mortgage, insurance cover is a condition of the loan which would then be breached.

This highlights the importance of aligning insurance cover with the timing of managed relocation, so that insurance is ideally maintained before managed relocation is effected, but can then be withdrawn once a buy-out offer has been made and the house is either moved or demolished (and hopefully maintained if the house is rented out for a period).

"Compulsory acquisition of private property *before* a natural event is significant, serious and politically risky. It may be that a voluntary programme, coupled with other levers in the market (such as insurance withdrawal, land-use change and external events) may yield the same result." (Reviewer)

5.2 Compulsory acquisition

As mentioned above, compulsory acquisition is rarely used in Aotearoa New Zealand, but it may make sense to include it in a managed retreat toolbox in cases where voluntary measures are unable to achieve the necessary change. Even the mere threat of compulsory acquisition can prompt property owners to reach a voluntary agreement.

As also outlined in Working Paper 2, any new regime for property acquisition would need to make it clear that Māori land would not be subject to compulsory acquisition and could be re-adapted to other non-residential uses. As we said there:

Any proposals for managed relocation must be sensitive to this history of Māori land dispossession. It has left some Māori communities with trauma and a fear of moving off their whenua and losing mana whenua (customary authority) status. For some, the depth of connection to the whenua on which their homes or marae sit, and fear of losing mana whenua status far outweighs the imminent risk posed by climate change. Any managed retreat policy will need to recognise the importance, as highlighted in the Te Ture Whenua Māori Act, of retaining Māori land in Māori ownership.²⁰

Any new compulsory acquisition powers will need to be housed in a statute. Although the Public Works Act is not currently well configured for managed relocation, it could be amended to explicitly provide for such a purpose. For example, the definition of 'public work' could be expanded. Different compensation considerations for managed relocation could also be incorporated into the Act.

The benefit of using the Public Works Act is that it has generally well understood provisions dealing with property acquisition, that have been widely tested in the courts, and these apply both to central government (through the Minister) and local government. On the down side, the Public Works Act brings with it negative connotations for some, particularly for Māori, because of the way it has been used to take Māori land.

Alternatively, it might be possible to expand the Local Government Act to include compulsory acquisition powers for local government, but the downside of this approach is that it would not provide central government, or any dedicated managed relocation national agency, with such powers which may well be needed. A third alternative would be to provide bespoke powers in a Climate Adaptation Act, which is the approach favoured by the Expert Working Group, as outlined above.



Umpuia, where Ngā Tai wharenui, wharekai, urupā and other wāhi tapu are located, is threatened with coastal erosion and flooding

Wherever such powers are housed, there is the issue as to whether they should be provided for as a broad discretion, as was the case in Christchurch (see below), or whether they should be accompanied by firm criteria as to when and how they should be used (more along the lines of the Public Works Act). For example, the statute could make it clear that voluntary purchase is to be preferred if at all possible, that compulsion could not be used in the case of Māori land, and that overall fairness and reasonableness need to be demonstrated.

Spotlight on compulsory acquisition powers

The *Public Works Act 1981* provides broad powers to acquire land under section 16. The Minister is “empowered to acquire under this Act any land required for a Government work”. Local authorities are similarly authorised to acquire “any land required for a local work for which it has financial responsibility”. Landowners may object to the taking of their land to the Environment Court. When determining whether the taking should be upheld, under section 24, the Court assesses whether “it would be fair, sound, and reasonably necessary for achieving the objectives of the Minister or local authority, as the case may require, for the land of the objector to be taken”. This means that “fair”, “sound” and “reasonably necessary” are the tests to be used when exercising the discretion. The Act also makes provision for acquisition by agreement.

The *Canterbury Earthquake Recovery Act 2011* (now repealed) provided that “the Minister may acquire land compulsorily by causing a notice of intention to take land in the name of the Crown to be published in the *Gazette* and twice publicly notified”.²¹ No criteria are provided as to when this power could be used or on what basis. And despite the requirement to publicly notify the intention to take land, the Act makes it clear that no objections will be entertained, stating in section 54(3), “To avoid doubt, there is no right of objection to a notice of intention to take land”. It is therefore a much more unfettered discretion than that under the Public Works Act.

The *Urban Development Act 2020* provides under section 256 that the Minister may acquire land for a ‘specified work’, which under section 252 is a work for the purpose of urban development. Acquisition is to be in accordance with Part 2 of the Public Works Act which includes the provisions described above.

5.3 Compensation

In Working Paper 1 we canvassed a broad range of options when designing a compensation system for residential properties and we have reproduced a summary of these in Figure 13 below. We refer the reader to Working Paper 1 for a list of the advantages and disadvantages of each option²² and to Boston (2023)²³ for a more in-depth analysis of factors to consider when designing a compensation system.

1. Compensation based on the replacement cost of the buildings plus the land value, with the land value based on comparable land in a safer nearby location
2. Compensation based on the value of a comparable or equivalent property in a safer nearby location (ie one of a reasonably equivalent size and standard)
3. Compensation similar to that provided under either option 1 or 2, but with a fixed cap (eg based on the average house price nationally or regionally in the recent past)
4. Compensation similar to that provided under either option 1 or 2, but with a fixed percentage contribution from property owners (eg 20%)
5. Flat-rate compensation with fixed amounts for each dwelling and land
6. Compensation based on the estimated remaining habitable life of the property – the shorter the estimated life, the larger the compensation payment. Freehold properties would be converted to leasehold, with time-bound leases based on the period during which occupancy is considered safe
7. Compensation adjusted to reflect the knowledge of climate change-related risks by the owners at the time of purchase or construction (eg could be time-limited)
8. Compensation differentiated depending on whether the property is the principal place of residence or not
9. Compensation differentiated according to the means of the owners (eg their net worth and/or income)
10. Compensation differentiated according to whether the property sale is voluntary or compulsory
11. Total compensation for property losses due to managed retreat capped annually or for specified periods of time (ie via a fiscal envelope)

12. No compensation beyond a fixed date; prior to that compensation based on one or more of the options above

Figure 13: Options for public compensation for loss of residential properties

Not all these options are mutually exclusive and a package of them could be adopted. They all have their downsides, and which option(s) should be chosen will depend on what principles ultimately underpin a compensation policy (ie such as concepts of fairness and solidarity), and the government's fiscal ability and appetite to fund it. As described above, the Expert Working Group has recommended a variant of these options, pegging compensation to market value but with a cap, and differentiating owner occupied homes from others (ie a mix of options 3 and 8).

In Working Paper 1, we also discussed funding options for Māori, infrastructure, businesses and nature. The recommendations of the Māori Affairs Select Committee on funding for Māori are highlighted in the spotlight below.

Spotlight on the recommendations of the Māori Affairs Select Committee on adaptation funding

The Māori Affairs Select Committee recommends that adaptation funding policies and frameworks should:

1. Give effect to Te Tiriti o Waitangi–the Treaty of Waitangi
2. Compensate Māori fairly for any loss of land or culturally important sites
3. Fund mātauranga Māori research
4. Fund Māori to participate in adaptation plan development processes led by others or to develop their own adaptation plans
5. Fund the implementation of Māori adaptation plans, including mātauranga Māori solutions²⁴

Potential sources of funding to pay whatever compensation is determined include:

- General taxation (central government)
- Property taxes (local authorities)

- Stamp duty levied on property transfers
- An additional levy on home insurance policies (and perhaps other insurance)
- An additional levy on fossil fuels (eg petrol and diesel)
- Drawing revenue from the Climate Emergency Response Fund – which recycles proceeds from the emissions trading scheme
- Revenue from renting purchased properties until removal or demolition
- Revenue from relocating dwellings and other structures, that can be moved cost-effectively, and re-selling them
- New taxes, such as a comprehensive capital gains tax, inheritance tax or wealth tax

When considering compensation options for managed relocation, it is interesting to review what compensation has been paid to residential property owners in the wake of recent natural hazard events, and where the money has been sourced from (see Figure 14). This shows that compensation has been pegged to pre-event market valuation (ie similar to option 2 above), although in the more recent 2023 compensation arrangements, the property owner has been left to cover 5 per cent of that value (ie reflecting option 4).

It is also clear that government has sought to incentivise property owners in general to take out home insurance by seeking to pay those who are uninsured less than those who are insured. In the case of the Christchurch red-zone (as we described in a spotlight in Working Paper 2),²⁵ the government offered insured home owners 100% of their most recent rating valuation, but only initially offered uninsured home owners 50 per cent of the value of their land and nothing for the loss of their building(s). Such a stark difference in the two offers saw the government's approach being overturned in the High Court and uninsured owners eventually received a similar payout to those who were insured.

It is interesting to see a more nuanced approach being taken for the more recent flood and cyclone events, where uninsured property owners have only been offered 80 per cent of market valuation, rather than the 95 per cent offered to insured home owners. There is also provision for a higher payout for the uninsured in special circumstances (presumably including cases where insurance had lapsed for reasons outside the homeowners control).

Although central government paid the full amount of compensation for those in the Christchurch red-zone (less any insurance pay-out), half the cost has been driven down to territorial authorities in the most recent events. However, in the case of the impecunious Gisborne District Council, government softened the fiscal impact of the buy-out and other cyclone recovery work by covering the interest cost of a 10-year \$30 million loan to the council, a ‘gift’ which was valued at around \$17 million.²⁶

Still, insurance has paid for the bulk of the damage to buildings, and so the future costs of government buy-outs will be much greater if undertaken prior to an event occurring (although the overall costs will be less because damage has been avoided) and this may affect the amount of compensation offered and the source of funds. It may also incentivise central government and councils to wait until an event has occurred before offering to buy-out property owners.

Location	Amount	Source
Matatā (event 2005)	100% current market value (without hazard)	Central government (33%), Bay of Plenty Regional Council (33%) and Whakatāne District Council (33%)
Christchurch (event 2010-11)	100% most recent rating valuation (prior event)	Central government (100%)
Auckland floods (event 2023)	95% of pre-event market value (insured) 80% of pre-event market value (uninsured); in special circumstances 95%	Central government (50%), Auckland Council (50%)
Hawkes Bay (Cyclone Gabrielle) (event 2023)	As above	Central government (50%) Hastings District Council, Napier City Council (50%) Gisborne City Council (50% but accompanied with an interest-free loan)

Figure 14: Compensation paid to homeowners post event

Whatever compensation package is developed for managed relocation it will be important that homeowners can have recourse to independent support to assist with any issues during the buyout process. As one interviewee emphasised:

A claims resolution service needs to be set early regardless of how robust a compensation scheme will be. A key learning that came out of the Christchurch red-zone was that there will be complex cases where people need support to be heard and there will be unjust outcomes.

We note, in this respect, that the Expert Working Group has recommended an expansion of the responsibilities of the New Zealand Claims Resolution Service to include non-insurance related issues that may arise in terms of implementing managed relocation.²⁷ It will also be important to provide ‘navigators to assist Māori landowners and communities through the retreat process.’²⁸



Slip damage, South Piha, Auckland

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6 Relocating and developing new settlements



New housing development, Hobsonville Point, Auckland

The process of relocating people, buildings and infrastructure raises some difficult issues as will providing new settlements for people who have relocated from high risk areas. These include whether a relocation programme should be developed, when and in what circumstances services can be withdrawn, how new settlements might be created and who should manage the overall process (see Figure 15). We discuss all these aspects in more detail below.

Element	Options
Removal of properties and infrastructure	Relocation programme
	Ad hoc removal and services withdrawal
Development of new settlements in low risk areas	Urban Development Act
	RMA/NBEA procedures
	Gifting of land
Management	Council
	Bespoke national agency

Figure 15: Options for relocation and developing new settlements

Spotlight on the recommendations of the Expert Working Group on relocation and developing new settlements

The Expert Working Group proposes a ‘relocation programme’ as a new tool to implement managed relocation, which would authorise the requisite powers and processes. The programme would be prepared by the adaptation committee, or the Māori decision-making body, and would be approved by the Crown. It would include all the actions required to effect managed relocation including determining the use and management of vacated land. A new Crown entity, such as a National Resilience and Recovery Agency or a National Resilience, Relocation and Reconstruction Agency could oversee the implementation of the relocation programme.

In providing places for people to move to, the Group recommends that standard plan change processes be used under the RMA/NBE unless relocation is imminent. In such urgent cases, urgent plan-change processes in the RMA/NBEA may be needed.

6.1 Removal of properties and infrastructure

The relocation programme proposed by the Expert Working Group appears helpful in providing a well-planned and hopefully well-executed programme of activities to address the physical relocation of properties and infrastructure (along with people). One specific matter that will need to

be considered is developing packages to support the relocation of cultural assets such as marae, whare and taonga associated with the marae.¹

In terms of the provision of utilities, there is the question as to whether the status quo should prevail, where there are strong protections on maintaining the provision of essential services (as described in Working Paper 2) or whether councils and other service providers should be able to withdraw such services to any remaining residents in the event that managed relocation is effected. Such withdrawal could enable funds to be redirected to the relocation process and provision of relocated services.

The Expert Working Group recommends a process whereby authorities can apply to withdraw services (including roads and bridges) from a property before or during a planned relocation process (Recommendation 59) which makes good sense. This may need to include the ability of regional councils to stop maintaining flood protection works under the Soil Conservation Rivers Control Act. A set of robust criteria would need to be applied to when services could or could not be withdrawn. It will also be important that services providers withdrawing services are required to remove any remaining infrastructure so that the land can be repurposed.

6.2 Supporting people in transit

Ahead of managed relocation, thought will need to be given to how those being relocated will be supported while they are between permanent housing at either end of the relocation process. For instance, funding to cover moving costs and waivers on property transfer administrative fees, could help people move through what will be a stressful ordeal. In addition, there may be a need to provide temporary accommodation for those in transit.

In the case of those affected by Cyclone Gabrielle, the government's temporary accommodation service offered long-term accommodation for less than market rent (albeit only where homes were available).² Weekly payments were also provided by government, to cover the cost of temporary accommodation, in order to assist property owners who were paying rent on top of servicing their mortgage.³ Similar support could be offered to those transiting through a managed relocation process.

One option to consider, in the context of managed relocation, is the construction of temporary accommodation (potentially at the new location) to house those in transit between their old and new homes. This could also house those affected by hazardous events prior to managed relocation occurring. For example, in the case of Westport,

MBIE's temporary accommodation service built 20 new homes on council-owned land at Alma Road (an area now slated for managed retreat) to house residents temporarily after the 2021 floods. Once new permanent housing has been established, the houses can be repurposed as social or affordable housing.⁴ A similar supportive approach could be provided for iwi, hapū and whanau needing to move.

It will be important to manage the impacts on social cohesion. The effects of managed retreat on those who do not move (for whatever reason) need to be considered alongside those who have relocated, as there may be feelings of being 'left behind' and impacts from the withdrawal of important local community services/facilities.

6.3 Development of new settlements

In some cases, residents affected by managed relocation may be able to find alternative accommodation elsewhere in their communities within the current housing market. But in other cases, whole communities may need to be moved, and this raises the need to develop whole new settlements. As indicated in Working Paper 2, the Urban Development Act makes comprehensive provision for the development of new urban settlements, with the process typically managed by Kāinga Ora. Councils also have the ability to buy up land on the open market and zone it for a new settlement under the RMA/NBEA. New sites could then be balloted to those needing to move (similar to the process in Grantham – see Part Two).

A spotlight on whenua tuku

Whenua tuku is a customary means of allocating land which could be drawn on in managed relocation policy. An example of its application, is the Mataatua Marae in Rotorua, which is whenua in the heart of Te Arawa. It was gifted to Tūhoe, recognising the arduous and time-consuming trek to travel from Tūhoe to Te Arawa. The Mataatua Marae was established for visiting Tūhoe (amongst others from Mataatua) to use as their own and under their practiced tikanga.

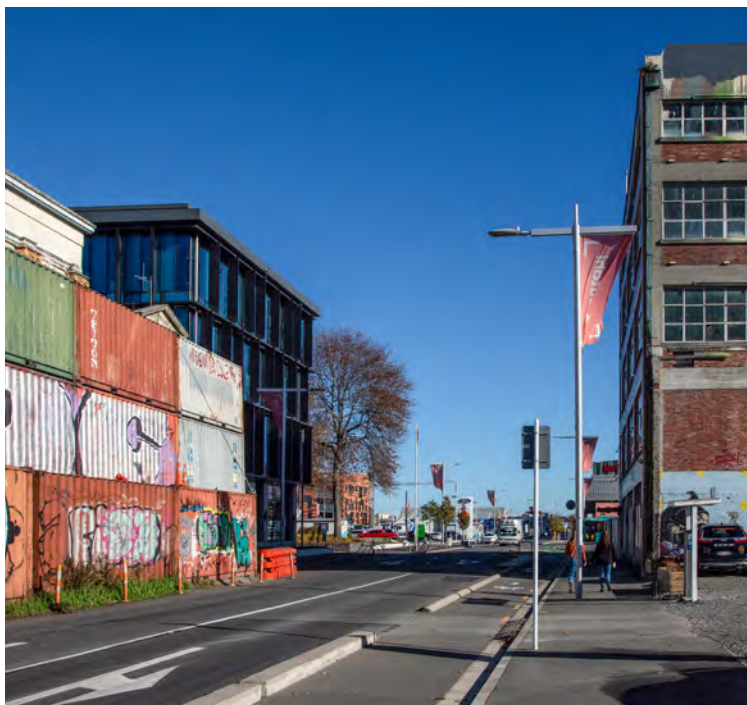
As highlighted in Working Paper 2, the Crown may need to assist Māori to obtain land suitable for the relocation of threatened marae, papakainga and taonga. This may involve government purchasing and then gifting the land to the affected tribal group. This would recognise 'whenua tuku' or the tradition where one hapū gifts another the right to occupy land in recognition of an event or specific circumstance. As well as helping to identify relocation sites, government should consider expediting necessary consents, funding infrastructure and addressing any socio-economic

issues related to the relocation. It will also be important to mitigate any exacerbation of existing housing-related inequities for Māori in any managed relocation exercise.⁵

6.4 Management agency

In some cases, particularly where only a small number of houses are affected, it may be possible for councils to undertake the process of relocating communities and developing new settlements if required. At the very least, a council could zone land and provide infrastructure so the private sector could develop the land. Another option would be for a bespoke national agency to be put in charge of the whole process. This is one option floated by the Expert Working Group as described above.

When considering how such an agency might be structured, it is useful to reflect on the performance of the Christchurch Earthquake Regeneration Authority (CERA) (see spotlight), which was the first and to date only dedicated recovery agency established in Aotearoa New Zealand. It suggests that a body strongly focused on implementation, and with excellent public communication skills, is likely required. For managed relocation it would also need a number of regional/local offices which could expand and contract depending on the scale and timing of the various relocation processes.



An area of the Christchurch CBD in 2021, a decade after the major earthquakes

Spotlight on the Christchurch Earthquake Recovery Authority

CERA was established in March 2011, in the wake of the Christchurch earthquakes, in order to lead a co-ordinated response to the disaster. As well as being tasked with providing policy advice to the Minister and Cabinet, and leadership for a whole-of-government recovery effort, CERA was directly tasked with delivering reconstruction programmes on the ground. The tasks undertaken by CERA included demolishing dangerous buildings, determining the future status of land, and managing the property buy-out process. It also co-funded and co-managed infrastructure repair. CERA operated for five years until April 2016 and administered \$4 billion of funding. It was established as a government department, as opposed to a Crown entity, to enable a high degree of Ministerial control. In 2015, CERA became a departmental agency of the Department of Prime Minister and Cabinet.⁶

In January 2017, the Controller and Auditor General published the results of an audit of CERA. It highlighted, in particular, the difficulty of quickly establishing a highly-functioning agency in the wake of a disaster indicating that any managed relocation agency should be established well in advance of any hands on relocation process being undertaken.⁷ It also highlighted the challenge of maintaining effective relationships with the community.

Although CERA was able to effectively bring many government departments and stakeholders together while undertaking short term tasks during the immediate aftermath of the quakes, the cohesion fell away during the restoration process, which required a longer-term strategic approach. This highlights the likely need to adapt community engagement approaches as any managed relocation process proceeds through the different stages. Such a shift was attempted when CERA was replaced by Regenerate Christchurch in 2016.

CERA also struggled to balance its strategic leadership role with delivering projects on the ground,⁸ suggesting that a managed relocation agency may be better to focus on the 'doing' element of managed retreat, rather than also having a policy function (an approach supported by the Expert Working Group).

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7 Post-relocation land management



Restoration dune planting, Te Henga

Once people have moved from a hazardous area, the land will need to be cleared and arrangements made for its ongoing management. We consider in this chapter options for land status and the overall governance and management of the vacated land (see Figure 16).

Element	Options
Land status	Reserves Act Climate Adaptation Reserve Māori reservation
Governance/management	Iwi/hapū DOC Local council Co-governance

Figure 16: Options for post-relocation land management

The Expert Working Group recommends that central or local government cover post-implementation costs including those related to demolition, clean-up and land rehabilitation and management.¹ The Group also notes that ownership options for the vacated land are likely to include the Crown (DOC or LINZ), local authorities or Māori trusts and that reserve status options are likely to be applied in most cases.²

7.1 Land status

As we noted in Working Paper 2, the Reserves Act currently lacks a specific category of land focused on the restoration and rehabilitation of natural ecosystems. Ecologist Mike Harding, in advice provided to EDS as part of our Conservation Law Reform project, has recommended that the Reserves Act be amended to provide for an amended range of reserves including a new addition of a ‘Climate Adaptation Reserve’ which would have as its purpose:

protecting areas for their potential to support or restore indigenous biodiversity and ecological processes, and to enable adaptation or evolution of indigenous biodiversity in response to natural or human-induced changes to the environment.³

Such a designation would provide protection for land that may have no or few current ecological values, but which may be ecologically important in the future for the inland migration of species/ecosystems (coastal retreat), and/or for species movement or adaptation in response to natural or human-induced loss of, or changes to, habitat.

An alternative (or additional) approach would be to create a Māori reservation in favour of local hapū on the vacated land under section 338 of Te Ture Whenua Māori Act 1993. Such reservations can be declared for any specified purpose and the land then becomes inalienable. This would enable the hapū to manage the land according to tikanga.

7.2 Governance/management

There will no doubt need to be a flexible approach as to how vacated land is governed and managed. Localised and ancient knowledge pertaining to the environment (mātauranga-ā-hapū) will be important when considering effective management of land post relocation. Hapū may need to be supported to develop contemporary land management concepts.

In the case of Māori land, there will be an opportunity for iwi, hapū and Māori to exercise rangatiratanga and also broader kaitiaki roles in ecosystem restoration. During relocation, this might include hapū putting rāhui over land deemed unsafe to protect communities from being at risk. Post relocation it could include reindigenising the whenua by restoring indigenous vegetation and wetlands. The benefits of such restoration are multifaceted including improving community health and wellbeing; enhancing employment opportunities; and increasing freshwater security, indigenous biodiversity and carbon sequestration.⁴

Where Māori land is vacated it will continue to be governed and managed by mana whenua. As well as being restored, it could be repurposed for mahinga kai or other commercial opportunities. A range of options could apply to other vacated land. In some cases it could be returned to iwi/hapū. In others it could become part of the DOC conservation estate managed by the department. In yet others, the land could be transferred into the ownership of the local council but with co-governance arrangements as is the case with the red-zoned land in Christchurch (see spotlight below).

Spotlight on management of vacated Christchurch red-zoned land

After the Christchurch earthquakes in September 2010 and February 2011, central government identified a red-zone along the Avon River (of around 602 hectares) where over 5,000 properties were badly affected by liquefaction. Voluntary purchase of affected residential properties was then undertaken, with the purchased land titles reverting to the Crown. Some property owners declined the government's offer so remained in the red-zone. Other land in the zone, including public reserves, was already owned by the Christchurch City Council.

The question of what would happen to the land retired from residential use was not addressed in the initial aftermath of the earthquakes and the vacated red-zone area was effectively left in limbo for some years. This was despite regeneration of the area representing “a once in a lifetime opportunity” for the city.⁵ A range of community-based groups and networks, which were keen to develop new uses for the land, were stymied by lack of clarity on where and how to get approval.⁶ As one interviewee explained:

In effect no-one was doing anything in the red zone as nobody was responsible for it. No-one could raise any money as there was nothing to raise money against. For a long time it was not entirely clear who owned the land.

It was not until 2016 (5 years after the second major earthquake), with the passage of the Greater Christchurch Regeneration Act, that formal planning for the future of the area began. The Act established Regenerate Christchurch, a joint Crown-council agency tasked with (amongst other things) developing visions, strategies and regeneration plans to assist with the regeneration of Christchurch. ‘Regeneration’ was to include urban renewal, restoration and enhancement. One of the regeneration plans, and the largest prepared by agency, was for the Avon River corridor (ie the red-zoned area).

After an extensive public and iwi engagement process, which included a public exhibition of options, a draft Ōtākaro Avon River Corridor Regeneration Plan was produced in 2018. It was finally approved by the Minister in August 2019 (now some 8.5 years after the second earthquake). By this stage, Regenerate Christchurch “was in something of an existential crises. It had axed many of its planning staff and pivoted to commercial development...”⁷ The agency was disestablished in June 2020, with responsibilities for plan implementation falling back on Christchurch City Council.

The plan itself was a visionary document, but was light on detail (see Figure 17). As former general manager of Regenerate Christchurch, Rob Kerr, explained to the media:

Regenerate Christchurch was co-owned by the Crown and the council. [It was] asked to do a plan on land that it didn't have, which would be implemented through a budget it didn't have.⁸



Figure 17: Map showing the regeneration vision for part of the Ōtākaro Avon River Corridor Source: Ōtākaro Avon River Corridor Regeneration Plan, page 48

When responsibility for implementation of the plan fell back to Christchurch City Council, in July 2020, there was no obvious home for it within council's then structure. It was notionally placed with the Parks Department, but the Regeneration Plan was about much more than simply managing the land as a park, it included ecological restoration, climate change adaptation, experimental purposes and cultural expression amongst many other things.

At that point, things fell back into limbo, while LINZ sorted out the land titles so they could be transferred to the Council. This was a major exercise. For 5,500 property titles, LINZ needed to survey the land and remove legal road statuses, before consolidating the titles into 29 larger lots. Property transfers to Council started in 2020, but were only completed in August 2023⁹ (12 and a half years after the second major earthquake). At that point, very little had still happened on the red-zoned land and much community impetus had been lost. As Kerr explained:

There's various community groups. Many of them doing great work. But there are many others that have just sort of frittered away because the opportunities were difficult to grasp... people just got on with their lives and started doing other things.¹⁰

It was only in 2022, that planting groups were finally able to access the land for restoration work. They managed to plant 60,000 trees,¹¹ but if they had been given access ten years prior (just after the earthquake) that may have seen 600,000 trees already in the ground. It would also have been helpful if the road network, which is gradually fragmenting, had been removed earlier. The Ōtākaro Living Laboratory has now been established to facilitate research, educational and learning opportunities within the river corridor. It has a vision of creating new ideas and ways of living for a climate-challenged city and globe.¹²

Now that Council has ownership of the land, it is proceeding with infrastructure works. However, it has not been all plain sailing. One significant problem has been the unexpected discovery of contaminated land which will likely be a problem all over the country after managed relocation. As David Little, the council red-zone manager explained to the press:

It was all ex-residential [land] and is more contaminated than we probably thought it would be. You've got everyone's old asbestos piles that they dumped in their backyard, you've got the lead paint that they scraped off the house when they repainted, they did some oil changes. There's all sorts of stuff and it's almost impossible to predict exactly where it is.¹³

Meanwhile the future governance of the land is still to be determined. The Ōtākaro Avon River Corridor Co-governance Establishment Committee was established in 2022 to advise Council on the development of a permanent co-governance entity for the area and to manage transitional uses in the meantime. It has yet to deliver its recommendations.

The events in Christchurch highlight the importance of providing for the future ownership, land status, management and use of vacated land in the circumstances of managed retreat to avoid leaving large tracts of land in limbo for long periods of time. It is also important that funding is allocated for the restoration and ongoing management of the land.

A managed relocation legal framework in the Climate Adaptation Act could usefully provide for the interim management of land during the period after property buy outs have been effected and residents have moved out, and before the land titles have been consolidated and transferred

to the ultimate owner. It could also include planning for the ultimate use of the land, perhaps a form of ‘regeneration plan’, as developed in the Christchurch example.

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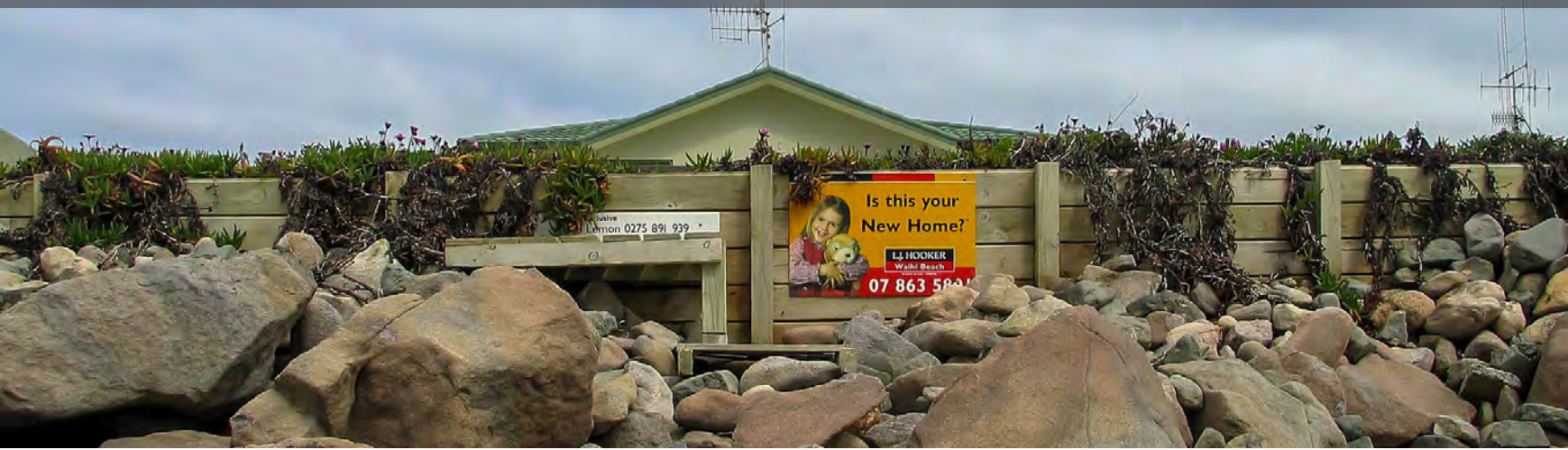
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8 Models for managed retreat policy



Sea defences, Waihi Beach

In this chapter we ponder what different models of managed relocation policy might look like if we put a group of the options described above together. To do this, we have set out below two potential models, one focusing on strong central government intervention, and the other adopting a more decentralised, community-led approach. We include these models, not because we are suggesting that one or the other of them should be adopted, but to provide a 'look and feel' for the various options when combined into a cohesive model. It is also entirely possible that managed retreat policy could transition from a less developed model (such as Model 2) to a more developed one (such as Model 1) over time.

8.1 Model 1: Comprehensive nationally-driven approach

Model 1 is an ambitious and highly interventionist approach to managed relocation in Aotearoa New Zealand (see Figure 18). It embraces a broad scope of government action and support. It is premised on the assumption that it is better to invest now to stave off the potentially dire long-term financial and social consequences of growing natural hazard risks. Failing to act in a decisive manner could lead to weak and inconsistent identification and assessment of risk (with resultant confusion on land use controls), underinvestment in public consultation which can undermine community acceptance of climate science, unclear allocation of responsibilities for the entire managed relocation process, and unfit-for-purpose compensation which many leave people with no means to move out of risky areas and get on with their lives.

Model 1 contemplates comprehensive government involvement to address these matters. It includes the creation of a new national agency (the National Adaptation Agency) with a broad role to support risk assessment and adaptation planning, and to oversee the nuts and bolts of property acquisition and the relocation of people. Instead of being a new agency it could be an extension of the functions of an existing entity such as the Earthquake Commission or Environmental Protection Authority. A specialist branch of the agency (or separate entity) would provide direct support to Māori communities.



Wharenui, Whakarewarewa

Phase	Elements of model 1
Identifying, assessing and communicating risk	• National natural hazard risk assessment exercise undertaken, region by region, by the Climate Change Commission linked to national risk assessments • Local risk assessments undertaken by territorial authorities, with technical and financial support from a National Adaptation Agency • Technical and financial support for iwi, hapū and whanau adaptation planning on Māori land, provided from the National Adaptation Agency, and coordinated by tikanga specialists • Methodology for risk assessment (including assessing compounding and cascading risks, tolerance to risk, and what amounts to 'high risk') set out in regularly updated guidance attached to a National Policy Statement under the RMA/NBEA • Risk assessments made publicly accessible with mandatory inclusion on LIMs • Assessments to be paid 'particular regard to' in all plan-making and consenting under the SPA, RMA/NBEA, Building Act and Local Government Act
Preventing development in risk prone areas	• Regional spatial strategies under the SPA required to spatially map high risk areas • National Policy Statement/National Environmental Standard mandate development in high risk areas as a prohibited activity • In the event of conflict, the avoidance policies in the NZCPS and NPS-NHD take precedence over provisions in the NPS-UD • Councils required to refuse subdivision consent on land within high risk areas under the RMA/NBEA • Building Act prohibits granting of building permits for development in high risk areas • Territorial authorities required to regularly report on number and value of homes, other buildings and infrastructure within high risk areas • Potential liability of councils for negligently consenting homes in high risk zones removed by statute
Undertaking adaptation planning	• Statutory framework for adaptation planning provided in Climate Adaptation Act (including national guidance) • All adaptation plans must also meet the requirements of national direction under the RMA/NBEA (including environmental limits which could also effectively be 'risk thresholds'), address how nature will be supported to adapt alongside communities and how cultural connections will be maintained within the risky areas • National Adaptation Agency initiates, or approves commencement of on request by others, (non-Māori) adaptation planning (at either regional, sub-regional or local level) • National Adaptation Agency approves the planning process and final adaptation plan ensuring consistency with national direction and the national adaptation plan • Bespoke processes provided for iwi, hapū and whanau adaptation planning to maintain tino rangatiratanga supported by specialist Māori branch of the National Adaptation Agency • Financial and technical support provided for the planning process through the National Adaptation Agency • Funding sourced from a National Adaptation Fund • Adaptation plans must be 'paid particular regard to' when developing RMA/NBEA/SPA/Local Government Act plans and considering resource consents • Adaptation plans provide the basis for seeking an 'adaptation designation' in the district plan (thereby avoiding new activities that will undermine implementation of the adaptation plans)

Acquiring properties	• Climate Adaptation Act provides powers of voluntary and compulsory acquisition of property for managed relocation with clear criteria for use • Act also provides a set of principles and framework for negotiating compensation when property is acquired (with more details provided in national policy documents developed under the Act) • A bespoke statutory mechanism provides for any acquisition of Māori land which can only be by agreement and ensures ongoing access • National Adaptation Agency handles all compensation offers and purchase agreements • Compensation for residential properties based on full market value with a cap on maximum amount • Compensation for businesses negotiated individually based on clear criteria such as material hardship and public good • Financial agreements reached with infrastructure providers to support infrastructure relocation and nature-based 'green' infrastructure • Funding made available to councils to support managed realignment (ie providing more room for rivers and the sea) and other measures to support the ability of nature to adapt (on a more generous basis than funding for hard defences) • Grants available to support innovative responses to adaptation by councils, iwi/hapū/whanau and communities including piloting new approaches • Insurance cover made available (and mandatory) in areas slated for managed relocation until property purchase (through a government-backed scheme where private insurers have withdrawn from the market) • Compensation and other funding support is sourced from a National Adaptation Fund which has several funding sources including regular top ups from general taxation, a new stamp duty levied on property transfers, and revenue from the Climate Emergency Response Fund • The New Zealand Claims Resolution Service is expanded to address claims arising from property acquisition for managed retreat
Relocation and developing new settlements	• Areas for relocation are identified in the regional spatial strategy under the SPA • Under the Climate Adaptation Act, the National Adaptation Agency develops detailed relocation plans in collaboration with councils, iwi/hapū/whanau and the community and oversees their implementation • Service providers can apply to withdraw services from areas being vacated, under new provisions in the Local Government Act, and must remove all infrastructure once services are withdrawn and restore the site • Means tested financial support is provided to assist with relocation costs and temporary accommodation is made available for those needing it when in transit between homes (and which can later be repurposed as social housing) • New land is purchased by the Crown, where needed, for the relocation of marae, papakāinga and taonga • Māori Adaptation Agency or Te Puni Kōkiri provides support for the relocation of Māori communities and associated buildings and taonga • Kāinga Ora is tasked with creating new communities under the Urban Development Act where needed • Where feasible, new sites are swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safer locations and minimising losses

Post relocation land management	• National Adaptation Agency oversees land clearance, amalgamation of titles by LINZ, and land transfer to the ultimate owner (which could be council, mana whenua or a formally constituted community group) • New land classification in the Reserves Act, of Climate Adaptation Reserve, is the default classification of vacated land • Where land is held under Reserves Act, the council develops a regeneration plan for vacated land in collaboration with iwi/hapū/whanau and the community, and with support from the National Adaptation Agency • Provision is made for land to be declared Māori reserve land in which case hapū lead development of the regeneration plan with financial support from the National Adaptation Agency • Funding support for the implementation of the regeneration plan, including governance and management arrangements, provided from the National Adaptation Fund

Figure 18: Key elements of Model 1 Comprehensive nationally-driven approach

This model has a considerable number of strengths. Adaptation planning will be the norm, and people will be pre-emptively moved away from unsafe areas. It is also likely to be cost-effective long term because early action to relocate communities reduces property and infrastructure losses from natural hazard events (recognising that the cost of just two recent events – the Auckland Anniversary Floods and Cyclone Gabrielle – has been estimated at between \$9 and \$14.5 billion).¹ It avoids the need to build and maintain costly coastal and flood protection works. In addition, costs could be staggered over time focusing initially on the highest risk areas nationally.

Such a well-resourced approach, which could begin well ahead of the need to relocate, would enable effective engagement with communities and context-driven approaches to be developed. It would also embrace innovation and piloting of approaches. This would help ensure that people feel they can have an impact on the possible future for their community and can tailor a solution appropriate to their circumstances. It could also spur education and training in sought-after skills, such as climate hazard risk assessment, climate adaptation planning and community engagement. As one reviewer stated:

This could be seen as ‘co-design’ of our future communities, involving creativity and ‘visioning’ of what they could look like in a way that we have never done before. Much of our existing community layout has been ‘imposed on us’, often by colonial norms, and is no longer fit for purpose. These communities *will* look very different in 50-100 years time...here we have the opportunity to determine how we *want* them to look.

A highly interventionist approach to planning, relocation and post-relocation land regeneration could also generate significant benefits, in

terms of increased biodiversity and ecosystem services (and ongoing lessening of risk), if nature is required to be factored into the process from the beginning. Furthermore, doing so in tandem with mana whenua would enable te Tiriti to be upheld. Putting central government in the driving seat of providing new housing, for those displaced, would also help take the strain off an already stressed housing market while those who have been bought out seek new homes.

The model also has a number of weaknesses. It is not clear where the staffing for a national agency would come from as much of the existing expertise lies in the private sector and increasingly in insurance companies. In the short term, it will be fiscally expensive, although costs could be managed through a staged approach and some funds could be recouped from subsequent house sales and also from the diverting of infrastructure spend away from areas tagged for relocation. In addition, strong government intervention, if not managed well, can mean that local preferences are overridden. Such issues occurred in Christchurch with CERA. As the Controller and Auditor-General reported:

surveys of the community show that the public’s trust and confidence in information from CERA declined over time, and many in the community were not satisfied that they had enough opportunities to influence decision-making about the recovery.²

In addition, the provision of central government funding opens up the process to political interference, where stronger councils may lobby for adaptation funds to be deployed in areas that may not have the highest need.

8.2 Model 2: Decentralised community-led approach

“Local government and communities must be empowered to build local solutions for national-level problems, with collaboration and funding from central government. This includes local government supporting a wide range of functions like housing, economic development, and response to climate change.” (Future for Local Government Review Panel)³

This model would see more emphasis put on communities making their own adaptation decisions and with central government playing a low key largely supportive role, rather than leading the process (see Figure 19). Adaptation processes would be mainly led by councils (either territorial authorities on their own or combined with other councils), with only broader guidance and some ad hoc funding support from central government. The model is based on the proposition that communities know best, and territorial authorities are the level of government best placed to know the needs of their communities.

Emphasis is put on risk identification and communication of information doing the work of helping to avoid development being put in the wrong place. Councils will remain potentially liable in tort for making negligent decisions that ignore this information, and property purchasers will be alerted to risk through its inclusion on LIMs, implementing a ‘buyer beware’ policy.

Greater reliance is also placed on councils funding a greater proportion of residential property compensation (reflecting the recent shift towards an equal share between governments in the Cyclone Gabrielle property offer) which means that at-risk property owners in poorer communities are likely to receive less compensation. There is no provision for pre-funding such as through the establishment of an adaptation fund or similar. In many respects this model is based on the status quo, but with some strengthened legal tools and increased support provided by central government.



Sponge Bay, Gisborne which was one of the worst areas in the city affected by the 2021 floods

Phase	Elements of model 2
Identifying, assessing and communicating risk	• Methodology for risk assessment (including compounding and cascading risks, tolerance to risk, and what amounts to 'high risk') set out in regularly updated guidance attached to a National Policy Statement under the RMA/NBEA • Regional councils and territorial authorities undertake risk assessments under the current provisions of the RMA/NBEA/SPA • Risk assessments made publicly accessible and mandatory inclusion on LIMs
Preventing development in risk prone areas	• Regional spatial strategies under the SPA required to identify high risk areas • National Policy Statement/National Environmental Standard provide framework for councils to identify areas of high risk in their planning documents in order to provide a policy and rules framework to manage the risks through consenting • Hazard information must be shown on LIMs under LGOIMA to support a buyer beware approach • Territorial authorities required to regularly report on number and value of homes, other buildings and infrastructure within high risk areas • Councils are potentially liable in tort for negligently consenting development in high risk zones
Undertaking adaptation planning	• National non-statutory guidance provided for adaptation planning • Adaptation planning undertaken on the initiative of councils under a broad framework inserted into the Local Government Act • Iwi/hapū and whanau determine own processes for adaptation planning • Councils and and iwi/hapū/whanau can apply to central government for grants, sourced from Vote Environment, to support adaptation planning • Adaptation plans are a matter to 'take into account' in RMA/NBEA/SPA/Local Government Act planning • Funding for implementation of aspects of the adaptation plan, such as building flood defences/seawalls or purchasing land for relocation, is provided by government through MBIE on application
Acquiring properties	• Properties (including Māori land) only acquired on a voluntary basis, by councils, under the Local Government Act • Councils provide 50% of the cost of residential property compensation and central government 50% • Compensation based on national non-statutory guidance (and is likely to be considerably less than full market value depending on the ability of the council to pay) • No compensation is provided to businesses • Service providers can apply to a separate infrastructure fund for financial support to relocate infrastructure • Insurance cover not required and may be withdrawn by private insurers
Relocation and developing new settlements	• Service providers can apply to withdraw services from areas being vacated, under new provisions in the Local Government Act, and must remove all infrastructure once service withdrawn • Te Puni Kōkiri provides support for the relocation of Māori infrastructure and communities • Kāinga Ora is tasked with creating new communities under the Urban Development Act • Where feasible, the new sites are swapped for vacated sites by ballot, thereby enabling relocatable houses to be moved to safety

Post relocation land management	• Vacated land reverts to ownership of the territorial authority or regional council • The council must consult with iwi/hapū/whanau and its community on the future use and management of the land under the Local Government Act • New land classification in the Reserves Act, of Climate Adaptation Reserve, is the default classification of vacated land

Figure 19: Key elements of Model 2 Decentralised community-led approach

This model also has a number of strengths and weaknesses. On the positive side, supporting councils to be in the driving seat of adaptation responses, should enable innovation to occur, as different communities craft different place-specific responses to the growing natural hazard risks they face. It may also facilitate a greater sense of community ownership and therefore greater acceptance of the adaptation plan. There is also less likelihood of local preferences being overrun by central government policies, although local processes themselves can be dominated by certain local factions (ie developers and business operators).

On the negative side, such a decentralised model may well see less well-resourced councils failing to undertake adaptation planning at all, unless considerable support is provided. It will also likely lead to significant disparity and inconsistency between councils with the inevitable social inequities within and between communities that this will produce. In addition, community relationships with councils are strained in some areas and would need to be rebuilt before constructive progress could be made on adaptation issues.

Such an approach may also be too slow. As climate change risk accelerates, it is likely that councils alone will not be able to keep up either financially or logistically. It may also see more investment in hard defences, which will seem more doable and affordable in the shorter term, and greater negative impacts on the natural environment

If central government is to provide significant funding for managed retreat, it may not be comfortable with leaving decisions on when and where significant relocations are to occur to councils. In addition, central government is itself a major owner and funder of physical and social infrastructure which will be affected by such relocations and so would need to be involved to some extent in local decision-making processes.

Even if central government decides to take a hand-off approach, when it comes to adaptation planning, it is will almost certainly be drawn in to the response to significant natural hazard events. It is instructive that government recently spent \$100 million on flood recovery for the Buller district, including Westport, which appears to have done little to increase

the resilience of the community. Focusing government expenditure on pre-emptive measures may turn out to be much more cost-effective long term.

Such a hands-off approach by central government may also see more widespread insurance withdrawal, and less generous compensation packages, if a significant proportion of the compensation is left to be sourced from the increasingly stretched local government purse. This may mean that a growing number of people are left facing property purgatory, when they are unable to sell their homes, and cannot afford to move out of risky areas.⁴ It also means that decisions on who will move and when may be more strongly driven by insurance cover and the extent to which it remains affordable or available at all. This could put local government on the back foot being left with the job of ‘cleaning up’ what is left.

This model may be more realistically seen as a transitional step towards a more comprehensive approach and may be more applicable to small managed relocation exercises. By providing interim support to councils to get going on adaptation planning, expertise will build up on how best to go about it, as well as a greater depth of knowledge to inform a more rigorous statutory approach which may be applicable to larger projects.

It would also be possible to combine elements of both models, with regional risk assessments undertaken at a national level along with the identification of areas in need of local adaptation planning, and local councils along with their communities doing local level planning and applying for national funding to support it.

“Each region will be unique with different environmental, social, local government/council and economic challenges. Therefore, any framework will need to have a degree of flexibility. However, there needs to be key principles for consistency. What is the cost sharing approach? Will managed retreat be voluntary? What are the over-arching principles of compensation?” (Reviewer)

Endnotes

1

Ensor J, 2023, 'Budget 2023; Government \$1 billion Cyclone Gabrielle and Auckland Anniversary floods package unveiled', *Newshub*, 14 May

2

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3

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9 Summary of international models



Geldese Poort, a restored area on the Rhine River, the Netherlands

In this part of the report we review a series of international case studies on managed relocation and draw out insights that can potentially help inform policy development in Aotearoa New Zealand.

The six international case studies that were investigated for this project, and which are described below, are:

1. Room for the River programme (managed realignment), the Netherlands
2. Blue Acres programme (managed realignment), New Jersey, USA
3. Managed realignment in Medmerry, Chichester, the United Kingdom
4. The managed relocation of the small town of Grantham in Queensland, Australia
5. Buy-back and resilience schemes for flood affected homes in NSW and Queensland, Australia
6. Efforts to relocate Shishmaref, a small indigenous community in Alaska

These case studies were selected for further investigation after we undertook an international desk top scan to identify approaches that had achieved some success and were potentially relevant to the Aotearoa New Zealand context.

9.1 Room for the River programme, the Netherlands

In the Netherlands, 55 per cent of housing is located in areas prone to flooding¹ and water management has traditionally relied on civil engineering methods (such as river dykes) to protect against hazards.² However, the risk of flooding has increased over time, due to more frequent and heavier rainfall and the decreased capacity of flood plains and rivers to absorb water.³ This led the Dutch Government to conclude that flood hazards could no longer be contained by traditional methods, and it established the 'Room for the River' flood protection mechanism in 2007.⁴

The Room for the River programme aimed to protect urban areas vulnerable to flooding by restoring natural flood plains in the areas of least impact, thereby undertaking managed realignment. Providing the rivers with more room to flood, by lowering the levels of flood plains, relocating levees, increasing the depth of side channels, creating water buffers and constructing flood bypasses,⁵ eased the pressure on dykes.⁶ The programme involved more than 30 projects across four rivers – the Rhine, Meuse, Waal and IJssel. As well as reducing flood risk, the projects also sought to improve the environmental quality of the rivers.

Implementing the Room for the River programme involved a total of 19 partners including provinces, municipalities, regional water authorities and the Ministry of Infrastructure and Water Management (Rijkswaterstaat).⁷ The Rijkswaterstaat established a central programme office to manage and monitor progress, evaluate the quality of projects, help with facilitation and provide expert knowledge. Decision-making on the actual projects was decentralised to the regional level, with local and regional stakeholders formulating and deciding on plans and designs.⁸ The central programme office established a structure of 'river branch managers' to provide a conduit between the central team and work on the ground. This helped ensure a continuous connection between project teams and the programme office to help the projects keep on track.⁹ Early engagement with the community was undertaken with newsletters, information meetings and interactive workshops utilised to identify and address the communities' concerns and promote their participation in the projects.¹⁰

Approximately 20 per cent of the programme's budget went towards buying and relocating 200 households in high-risk areas.¹¹ Although the Dutch government offered the market price for each property, and assistance to help find a new home, buy-outs were compulsory.¹² Significant funding also went towards improving amenities for the remaining, and now better protected, urban areas. For example, as part of the Waal River project, a 618-acre area with bike and walking paths, plazas and green spaces was provided, helping to win over affected locals to the prospect of losing their homes.¹³

Such an approach has achieved some resonance in Aotearoa New Zealand. For example, Forest and Bird has been advocating for implementation of making room for rivers as "a nature-based solution to climate change that will protect communities from devastating floods while restoring the environment and enhancing local recreational opportunities".¹⁴

9.2 Blue Acres programme, New Jersey

New Jersey is one of the most flood-prone states in the United States due to its heavily developed floodplains and densely populated shoreline.¹⁵ With climate change, the state is facing heightened risks of tropical storms, heavier rainfall, storm surges and riverine flooding.¹⁶ The Blue Acres program was established in 1995, with a specific emphasis on acquiring properties susceptible to flooding, and converting them into passive recreational green spaces managed by local government. Since that time around 1,000 properties have been purchased by the programme.¹⁷

When it commenced, the Blue Acres program was entirely state funded and undertook proactive buyouts under the Green Acres, Farmland,

Historic Preservation and Blue Acres Bond Act 1995.¹⁸ However, after Hurricane Sandy in 2012, the program secured \$273 million from the Federal Emergency Management Agency and the Department of Housing and Urban Development, thereby shifting to disaster recovery assistance as well.¹⁹ State funding was used to meet the federal requirement of 25 per cent matching funding thereby relieving local government from its part of the financial burden.²⁰ Additionally, a constitutional amendment by the New Jersey State Legislature, in 2019, imposed a 6 per cent corporate business tax to help fund the programme. This has provided a sustainable and predictable funding source, so that buy-outs can be undertaken on a long-term strategic basis.²¹

The State Department of Environmental Protection manages the Blue Acres programme, with various criteria guiding the selection of communities invited to take part in the buy-out process. They include identifying high concentrations of homes that have experienced the most severe damage from a recent storm, and over-burdened communities which are disproportionately impacted by flooding and other adverse environmental conditions.²² The Department works directly with the federal government to obtain federal funding, and with local governments in the communities where buy-outs are occurring.²³

Homes are purchased at their pre-storm or pre-flooding value to incentivize property owners to sell while providing sufficient resources for them to relocate to safer locations.²⁴ Each homeowner is paired with a case manager to provide support throughout the entire process.²⁵ Blue Acres officials work with real estate agents on behalf of sellers purchasing new homes to coordinate down payments and other funding requirements.²⁶ Notably, under State law the programme is barred from 'taking' property (through the power of eminent domain) unless approved by both Houses of the legislature meaning that residents must in effect voluntarily agree to sell their damaged or flood-prone home to the state.²⁷

What makes the Blue Acres programme of particular interest to Aotearoa New Zealand is its aim to only purchase clusters of homes (with all property owners within the cluster needing to agree to the buy out before it proceeds) rather than individual properties. This enables interconnected restoration areas to be created, rather than a patchwork of land between homes that have not participated in the buy-out. Such an approach helps to maximise the environmental and hazard mitigation benefits of the investment.²⁸

9.3 Managed realignment, Medmerry, Chichester

Medmerry has long been susceptible to coastal flooding. A shingle bank structure, which had been constructed to protect the town, was frequently breached and required £300,000 in annual maintenance. Over time, erosion and sea-level rise severely diminished the intertidal habitat, which was unable to expand due to the proximity of nearby urban areas.²⁹ Things came to a head when, in 2008, a flood event caused £5 million of damages. This prompted the initiation of a managed realignment project, which was completed in 2013 at a cost £28 million, with the funds provided by central government.

The realignment was led by the Environment Agency in partnership with the Royal Society for the Protection of Birds. A Medmerry stakeholder group, which included representatives from local authorities, businesses, parishes and residents, was an integral part of the project. The group agreed on project objectives and helped with the design. Additionally, workshops, public exhibitions, guided walks and a dedicated liaison officer were provided to promote community participation.



Managed realignment of farmland, with the re-establishment of a coastal wetland, Exmoor

The project involved breaching 110 metres of the shingle bank to permit the ingress of tidal water. This created 183 hectares of new intertidal habitat which is now managed by the Royal Society for the Protection of Birds. Additionally, 7 kilometres of new flood banks were constructed some 2 kilometres inland, forming a low-cost flood defence system to protect the two local towns.³⁰ Ten kilometres of new footpaths, cycleways and bridleways were also built across the site.³¹ As well as generating considerable environmental benefits, the project has reduced flood risk to 350 homes, local infrastructure and roading, and it did not necessitate the removal of any houses.³²

9.4 Relocation of Grantham, Queensland

Grantham, a small town in Queensland, Australia, was built on a floodplain and had experienced multiple instances of flooding over 150 years. Things came to a head when, during the Queensland floods of 2010-2011, a flash flood inundated the town killing 12 of the 370 residents and damaging numerous buildings.³³ After witnessing the destruction caused by one of the worst flooding events in the town's history, the Mayor decided to look to other options before rebuilding.³⁴ Within three months, the Lockyer Valley Regional Council had purchased a 938-acre site on a nearby hillside unaffected by flooding.³⁵ It took only a further four months to rezone the rural land for urban use utilising special fast track procedures under the Queensland Reconstruction Authority Act 2011.

Owners of affected properties were able to swap their land for a plot of similar size within the newly developed area, with the specific site identified by lottery.³⁶ They were then required to remove all existing buildings before vacating their damaged land. Participating property owners could apply for state grants of \$35,000 to assist with these costs. They were also exempt from paying transfer duty on their new lots.³⁷ The old land titles were transferred to the Council for non-residential use.

A significant amount of community support was offered during the relocation process. The Council ran weekly workshops, one-on-one meetings were held between affected property owners and case managers,³⁸ and there were extensive community consultations and public meetings. The media was also kept closely engaged throughout the project.³⁹ Participation in the land offer programme was voluntary. In the end 115 land titles were transferred with 50 houses remaining in the old flood-risky part of the town. Some remained because they could not afford to move, being unable to fund the construction of a new home on the resettlement site.⁴⁰

In terms of financing, the Commonwealth Government provided 47.5 per cent for recovery and reconstruction across the state, the Queensland Government provided 17.8 per cent, insurance provided just under 30 per cent, and private donations covered just over 5 per cent.⁴¹ Most of the government funding covered the replacement of key infrastructure, with insurance payments largely paying home reconstruction costs. Additionally, some (but not all) uninsured or underinsured residents – whose eligibility for donations was income tested – were offered private donations via non-profits.⁴²

9.5 Buy-back schemes in NSW and Queensland

From late February to early April 2022, three intense weather systems devastated the states of Queensland and NSW in Australia, with over 20,000 homes and businesses flooded in Queensland and more than 5,000 homes damaged in NSW. At least 23 people died and thousands were evacuated.⁴³ In response, the Commonwealth, Queensland and NSW governments decided to implement a home buy-back scheme and provide other adaptation support for those impacted by the 2022 floods.

The Resilient Homes Program – a \$700 million programme co-funded by the NSW and Commonwealth governments – was established for the Northern Rivers area of NSW. It offers one of three options to eligible homeowners based on flood impact severity data, safety risks, expert property assessments and potential future flood levels. The options include home buy-backs for those located in areas where flooding may pose a risk to life, support of up to \$100,000 to raise the level of a home, or up to \$50,000 for home retrofitting.⁴⁴

A Voluntary Home Buy-Back Program – with funding of \$350 million – has also been set up in Queensland in order to fund councils to buy back homes at their pre-flood valuations. The sales are negotiated by the Queensland Reconstruction Authority which organises a valuation of the homes registered for the scheme before negotiating with the relevant owner, developing the sale documentation and then selling the property to the relevant council.⁴⁵ The land is then rezoned as ‘non-habitable use’ so that no home can be built there in the future.⁴⁶

A Resilient Homes Fund of \$741 million, funded by both Commonwealth and Queensland State Disaster Recovery funds, has also been established and is administered by the Queensland Reconstruction Authority.⁴⁷ It is funding homeowners to repair or retrofit their homes to enhance resilience including through raising their houses. In addition, a Resilient Land Program – a \$100 million programme fully funded by the NSW

Government – focuses on identifying flood-safe land suitable for redevelopment and relocation of those impacted by the 2022 floods.⁴⁸

These programmes provide residents options to sell and move, or fix and make their damaged homes more resilient, while also providing pathways for future development in flood-safe areas. Notably, all participation in the programmes is voluntary, leaving citizens with a choice over their flood response.

The public response to the NSW and Queensland voluntary buy-back schemes has been strong. More than 5,700 Queensland homeowners registered for the Resilient Homes Fund by January 2023,⁴⁹ and in NSW, 250 formal buy-backs were offered by the end of April 2023.⁵⁰ Nevertheless, there have been some issues. The number of registered homeowners and vulnerable properties exceeds both funds’ capacity, meaning many will miss out.⁵¹ There have also been claims that the amount of the offers are significantly lower than expected based on previous valuations.⁵²



Coastal development and sea defences in Port Stephens, NSW, Australia

9.6 Efforts to relocate Shishmaref, Alaska

Shishmaref is a small town of around 600 residents located on Sarichef Island in Alaska. It is home to the indigenous Iñupiat community which undertakes fishing and a subsistence lifestyle. Sarichef, a small barrier island comprised mainly of sand, is particularly vulnerable to the impacts of climate change due to the combined pressures of reduced Arctic Sea ice, melting permafrost and sea-level rise.⁵³ Since the 1970s, there have been many erosion events leading to the collapse of several structures into the sea. In 1997, after 10 metres of the shore eroded after a storm, 14 homes were relocated to another part of the island. Five more homes were moved in 2002.⁵⁴ Shortly thereafter several coastal revetment projects were implemented, at a cost of more than US\$27 million, but these have only offered short-term protection.⁵⁵

The Shishmaref Erosion and Relocation Coalition was created in 2001 to address threats posed to the village by erosion and flooding. In 2002, the community voted to relocate, so the Coalition created a strategic plan for relocation.⁵⁶ In 2004, the US Army Corps of Engineers undertook a cost analysis which found that relocating the town to a new site would cost approximately US\$180 million, and co-locating to a nearby village would cost around half that amount, at \$94 million.⁵⁷ Despite the lower price, merging with another village was seen as likely jeopardising the Shishmaref community's way of life and cultural heritage. Therefore, the Coalition decided to proceed with relocation to a new site. During a public meeting held in December 2007, the community approved an inland location – Tin Creek – as the preferred site for relocation, with the understanding that the village had 10-15 years before the current location would become untenable.⁵⁸

Nine years later, in 2016, a further study (the Shishmaref Relocation Site Feasibility Study funded by the Division of Community and Regional Affairs) assessed five relocation options based on factors such as flooding, erosion, access to traditional use areas, and costs.⁵⁹ As a result of this study, residents decided in August 2016, with a vote of 94–78, to move to either Old Pond or West Tin Creek Hills on the mainland.⁶⁰

Over more than two decades, a large amount of work and resources has been put towards completing studies and creating policies to allow for the relocation of Shishmaref. Nevertheless, the community has still not relocated due to a lack of consistent state and federal funding which is required to facilitate the relocation process. Shishmaref and other Alaskan communities find it difficult to compete for hazard mitigation funds due to their geographic isolation and low population. The US Government

Accountability Office has highlighted that more than 70 Alaska Native villages face significant environmental threats from erosion, flooding or thawing permafrost. It recommended that Congress consider establishing a coordinating entity to assist Native villages facing environmental threats. This could allow for more strategically targeted federal investments that better address the challenges faced by Alaska's Native villages.⁶¹

9.7 Key themes from international case studies

These international case studies provide several over-arching themes and lessons to inform approaches taken in the development of climate adaptation policy in Aotearoa New Zealand.

9.7.1 Funding and buy-backs

The success of managed relocation is very dependent on access to a strong and predictable funding source. This is especially important for voluntary buy-back schemes, which if limited by funding, will cause some residents to miss out. If adequate funding is not made available, communities will remain trapped in hazardous areas, as was the case with some Grantham residents and the indigenous Iñupiat community in Shishmaref. There seems little point in undertaking relocation studies if the requisite funding to implement the preferred option is not likely to be forthcoming. This can only serve to unhelpfully raise community expectations.

In some cases the programme was entirely funded by central government (Room for the River) and in others there was a mix of sources including federal government, state government, insurance and donations. Local councils were not generally expected to fund the programmes, although they were often the key implementers of managed relocation. Much of the funding was spent on replacing, moving or reconfiguring key infrastructure rather than relocating homes. In some cases (eg Medmerry) no homes needed to be acquired in order to put in place a very effective managed realignment regime which also generated significant benefits for nature.

9.7.2 Governance

Many of the case studies incorporated multi-level governance structures. This required coordination between national/federal (and/or state) government, as the over-arching decision-maker and potentially funder, and local governments which have contextual knowledge about their geographic area. Local government involvement helped ensure meaningful stakeholder and community engagement. In some cases a specialist entity was involved, such as the Queensland Reconstruction Authority.

In the Dutch Room for the River initiative, government established a central programme office to oversee the project but decisions on the actual plans were made at the regional level. A group of 'river branch managers' provided an important conduit between the central and regional levels.

In the Grantham example, the council took the impetus to relocate the community and had sufficient resources to buy land for the relocated community. However, the council was then strongly supported by the state government in providing access to fast track procedures for rezoning. This enabled the relocation process to be completed swiftly with the new blocks of land allocated within two years of the flood. Such speed, if it can be achieved, is important in providing certainty to those affected, and enabling them to get on with their lives as soon as possible.

9.7.3 Community engagement

All the case studies illustrate the importance of stakeholder and community engagement in managed relocation efforts, and this has also been highlighted in the Aotearoa New Zealand case studies. Such engagement is a specialist skill which needs to be incorporated into managed relocation teams.

9.7.4 Social support

In most cases, the relocation process was voluntary (with Room for the Rivers being the exception). In some cases a range of options were

funded including relocation or adaption of houses in situ. Whatever the programme, strong social infrastructure was crucial in successfully managing relocation processes. As was also demonstrated in the Christchurch red-zone experience, relocation involves real people who may be scared and hesitant to give up their homes, particularly because of the various complicated processes involved. Providing a wide range of services and support can ensure that those moving are looked after every step of the way, creating a seamless process that limits stress and anxiety as much as possible.

9.7.5 Nature-based solutions

Nature-based solutions – such as managed realignment highlighted in the Room for the Rivers, Blue Acres and Medmerry case studies above – can achieve significant environmental and community gains when undertaken alongside managed relocation. They can reduce hazard risks for the remaining community, create more room for nature, and improve community amenity.

9.7.6 Scaleability

Many of the programmes were of a reasonably small scale and there are questions as to whether the approaches could be scaled up significantly. For example, the Room for the River programme purchased 200 houses, 115 houses were relocated in Grantham, and the Blue Acres programme has purchased only around 1,000 houses over a 28 year period. The NSW flood buy back programme is larger but had approved only 11 per cent of the 5,001 applications for a buy back 20 months after the flood disaster.⁶²

Endnotes

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10 Conclusions



House in the dunes, Ocean Beach, Hastings

This working paper has canvassed a wide range of options for development of managed retreat policy, while also traversing a wealth of experience both in Aotearoa New Zealand and overseas. Our intent has been to widen the debate as to what might be possible and desirable to include in such policy, and in particular in a new Climate Adaptation Act. We are keen to hear feedback on the options presented.

This is the last working paper in the series. In our final report, due early in 2024, we will be putting forward what we consider to be the best path forward for the country, in terms of developing managed retreat policy. The proposals will strongly focus on the content of the proposed Climate Adaptation Act. We do this work, cognisant that adapting in the face of growing climate hazards is likely to be one of the greatest future challenges facing this country.

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Appendix 4: EDS media release (1 February 2024)

Government ramps up assault on our natural world

 eds.org.nz/resources/documents/media-releases/2024/government-ramps-up-assault-on-our-natural-world

February 1, 2024

In a chilling letter sent to stakeholders yesterday, Hon Chris Bishop, Minister for Resource Management Reform, advised of the Government's intention to establish a new fast-track consenting regime for local, regional or nationally significant infrastructure and development projects.

The 'fast track' Bill will be introduced into the House before 7 March 2024 and it's shaping up to be the biggest assault on our natural world since Muldoon's National Development Act in 1981.

The new stand-alone law will enable Ministers to approve projects that are locally, regionally or nationally significant – so basically anything. 'Consenting' Panels will have limited ability to decline projects, reducing their input to a rubber-stamping, condition-setting, exercise.

The new law will operate separately from the Resource Management Act and create a one-stop-shop for approvals under other unnamed legislation too, including potentially the Conservation Act.

"Let's not sugar coat this," said Gary Taylor, EDS CEO.

"This is a war on our natural world. It has the potential for environmentally destructive projects to proceed at haste, with minimal environmental assessment, transparency and public involvement.

"We haven't had Ministerial decision-making on individual projects in this country in modern times. There are good constitutional reasons for that – granting regulatory approvals should not be used as a way to raise political capital or engage in pork-barrel politics.

"We cannot have law that enables private developers to lobby Ministers for approvals, especially when everything seems to be on the table, including coal and gold mining (deep sea and in the Conservation estate), open ocean aquaculture, large scale wind projects, industrial solar farms, housing developments, infrastructure and just about anything you can think of.

"And to cap it off, the Bill will likely contain a list of projects that will be first to have their approvals granted. This is redolent of the bespoke legislation that authorised the Clyde Dam before outrage led to the constitutional reforms of the 1980s. It's a return to the use of unbridled executive power we thought we'd left behind.

"All New Zealanders should be concerned because this could affect their backyard, their favourite recreational spot or beloved beach, river or mountain.

"EDS remains very willing to engage with Ministers in the development of this Bill which will need significant changes to make it acceptable. Fast-track is not a bad thing but this proposal goes way too far. There is a point where we will stand our ground," concluded Mr Taylor.

Read letter

Appendix 5: EDS Letter to the Minister (5 December 2023)

5 December 2023

Hon Simon Watts
Minister of Climate Change
Parliament Buildings
Wellington

Dear Minister

Your appointment and EDS BIM

Congratulations on your appointment as Minister of Climate Change. The Environmental Defence Society (EDS) looks forward to working with you over this term of government.

Who we are

EDS is an environmental non-government organisation, comprised of resource management professionals.

EDS was established in 1971 by Sir David A R Williams KC and a group of lawyers, law students and scientists. The intention was to bring together the disciplines of science, law and planning to advocate for the environment.

EDS has been active in legal proceedings on behalf of the environment over many decades, including in the seminal Supreme Court case *Environmental Defence Society v New Zealand King Salmon Co Ltd*.

EDS has been involved in providing support and capacity building for individuals, community organisations and councils; in undertaking research and policy analysis on important environmental issues (including resource management, conservation and oceans reform); in litigation on important environmental issues; and on profiling key environmental issues through seminars and conferences. It runs New Zealand's leading environmental summit and climate change conference, both annually.

EDS is well-respected in New Zealand for its thoughtful, research-based contributions to environmental legal jurisprudence and policy making. EDS seeks to build constructive partnerships and relationships with business, community organisations and government agencies. It speaks for the environment. EDS is strictly apolitical.

Climate Change and Business Conference

As you will be aware, EDS organises the annual *Climate Change and Business Conference* jointly with the Sustainable Business Council. We look forward to having you present a keynote address at our next conference in Auckland in September 2024.

EDS has been organising this conference now for over 15 years. It has proven a useful opportunity for business to explore the challenges and opportunities arising from climate change and undertake a stock-take on progress towards reducing emissions on an annual basis.

We have come a long way since the inaugural event where the science was being challenged and farmers were driving tractors up the streets of parliament in opposition to emissions charging. You will have seen the large, motivated and informed group of attendees earlier this year. Those people are important stakeholders given your portfolio responsibilities.

Climate Adaptation Policy

The urgent need to address climate change risks was highlighted earlier this year when Cyclones Hale and Gabrielle hit the North Island. EDS is undertaking a major project on climate adaptation focused on providing recommendations for design of the proposed new Climate Adaptation Act. This work is sponsored by a number of business and local government interests including ASB, IAG, Beca, KPMG, Auckland Council and Wellington City Council.

We are about to release Working Paper 3 which is focused on identifying options and models for managed relocation policy. Earlier working papers focused on identifying system principles, how relocation might be funded, and gaps in the current law. We will forward separately copies of the three working papers. We look forward to presenting our work to the select committee public inquiry into climate adaptation early next year.

Climate Mitigation Policy

We welcome your government's commitment to meeting the emissions budgets that have been set to 2025, 2030 and 2035, New Zealand's Paris Agreement 2021-30 NDC, and the 2050 targets in the Climate Change Response Act.

We also acknowledge and welcome your support for continued bipartisan implementation of the Zero Carbon Act framework, including upholding the role of the independent and expert Climate Change Commission.

We encourage you to follow the advice of the Commission as it undertakes its work programme and produces its recommendations during the course of this term of government. Civil society has a strong interest in meeting our emissions targets and any substantive rejections of its advice will be carefully scrutinised.

The most significant immediate challenge you have is to put together a coherent plan to deliver New Zealand's domestic and international targets by the end of 2024. This will quickly be followed by the need to set New Zealand's next Paris Agreement NDC.

Specific asks

Our specific asks of you are as follows:

ETS Review

First, your government's proposal to stop the current ETS review needs revisiting. That review is intended to address the balance between gross and net emissions reductions and to slow down or halt the conversion of beef and sheep farms to permanent exotic carbon forests. The ETS in its current state will not on its own drive the gross emissions reductions required to meet near-term emissions budgets. If it is your intention to make greater use of the ETS, and less use of other policies, then the ETS would need to be strengthened. The review has strong support amongst the rural sector. We consider that the rationale for stopping it lacks robustness. The approach taken to forestry in the ETS is a good example of an issue where a bipartisan approach would be valuable to provide long-term stability for investors in both emissions reductions and forestry.

Climate Emergency Response Fund

We consider that your government's axing of the CERF is ill-considered and should also be revisited. Addressing climate change adaptation and meeting domestic and international emissions targets will each involve significant government investment. You need to give some thought to how funding from the ETS can be diverted into real emission reductions and adaptation. Using that funding for tax cuts is short-sighted. In particular, co-funding for industrial emissions reductions from the CERF has been an effective and rapid way of closing the gap to our near-term targets, driving reductions that would not have occurred under the ETS.

ETS industrial free allocation

The world has moved past the time of protecting legacy high-emissions industries so they can continue to emit, and yet our ETS framework continues to do so. The basis for industrial support in the ETS should be fundamentally overhauled, to focus on providing a clear path for companies to transition to zero-emissions production, rather than protecting the status quo.

Methane and nitrous oxide

We do not support the suggestion that "no additional warming" is a suitable target for agricultural methane. It is a misreading of the science and economic drivers to conclude that real emissions reductions of methane are not required. They are required if we are to meet our obligations, maintain our reputation as a good global citizen and retain market access. If the agricultural sector does not pull its weight, that burden will fall on other sectors of the economy and on taxpayers. It would be massive subsidy. Please also note that we have obligations under various free trade agreements that will need active monitoring to ensure compliance.

We would also like you to separately consider policy and targets for nitrous oxide, which is included in New Zealand's net-zero target but is not currently in the ETS. Because of this, ETS participants are effectively paying to offset those emissions, and ETS companies will be required to reach net-zero sooner than otherwise. The question of how nitrous oxide's share of the net-zero target will be met needs to be addressed.

Policy assessment

We welcome the intention to conduct benefit-cost analysis of climate policies, but would caution that an overly simplistic approach to this will lead to poor short-sighted outcomes. Climate change is fundamentally a problem of long-term economic transition, not of short-term optimisation. The low-hanging fruit that gives immediate lower-cost emissions reductions are often not the critical-path steps for long term transition. This means that broader approaches to assessing policy packages are becoming international best practice.

As a second example, the true value of emissions reductions is not reflected in current ETS prices. The United States uses a social cost of carbon on US\$200/t for assessing policy. The United Kingdom uses £250/t. New Zealand should also be valuing domestic action to reduce emissions at these levels, including in assessing gas and electricity market policy.

Native reforestation

The utility of native forests as long-term carbon sinks needs prioritising. Unlike permanent exotic forests, which lock up land and are more susceptible to pests, disease, fire and collapse, permanent indigenous forests have advantageous co-benefits of enhancing indigenous biodiversity, soil health, stability and conservation, air and water quality, and regulating local climate conditions.

They enhance the natural landscape instead of creating long-term liabilities. Climate change and biodiversity loss are inextricably linked and need to be addressed simultaneously and synergistically. Using carbon credits generated from indigenous afforestation to achieve biodiversity gains will address both crises in tandem.

We recognise the high costs of establishing and maintaining indigenous forests, especially on marginal land, and the currently limited commercial return on investment. Scaling up native afforestation will therefore require up-front financial support. A biodiversity payment or incentive scheme could be that mechanism. We encourage you to support development of a biodiversity incentives scheme to help establish a native afforestation sector.

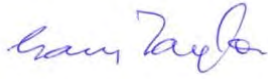
Focus the Emissions Reduction Plan work in 2024 on over-achievement

In 2024 you will oversee development of New Zealand's second emissions reduction plan for the period 2026-30. This is the opportunity to look across ETS reform, complementary policies, agriculture and forestry and make sure that short- and long-term objectives are met. Through this process, the government should also strive to over-achieve the second emissions budget and use those reductions to reduce the need for offshore purchases toward our Paris Agreement NDC. As well as meeting our 2030 target in a better way, this also will set us up to meet the next 2035 NDC with less offshore mitigation.

Conclusion

The team at EDS is available to assist with independent commentary and feedback on policy developments. We would like to meet you at a convenient time to discuss these matters and actively engage with you over this term of government.

Your sincerely



Gary Taylor CNZM QSO
Chief Executive
Environmental Defence Society

gary@eds.org.nz

021 895 896



Aide memoire: Additional information on the current freshwater farm plan system

Date submitted: 8/02/2024

Tracking number: BRF-4202

Security level: Policy and Privacy

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Andrew HOGGARD Associate Minister for the Environment	For noting only
CC Hon Penny SIMMONDS Minister for the Environment	For noting only

Appendices and attachments
NA

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Althea Francis		
Responsible Manager	Ali McHugh		
General Manager	Gina McGrath		✓

Additional information on the current freshwater farm plan (FW-FP) system

1. We note the Government's intention to improve freshwater farm plans to ensure they are cost effective and pragmatic for farmers. The below information outlines the FW-FP system as it currently stands.

Objective of the current FW-FP system

2. Part 9A of the RMA established FW-FPs as a regulatory tool that supports farmers to manage on-farm risks to freshwater, in a way that is tailored to the individual farm and the catchment.
3. Regulated farm planning is already used by a range of councils to manage environmental effects. The FW-FP regulations aim to set a nationally consistent approach to how councils use farm planning to manage on-farm risks to freshwater.
4. FW-FP regulations are made under Part 9A of the RMA and are separate from the National Policy Statement on Freshwater Management (NPS-FM).

How the current system seeks to achieve this

5. FW-FPs create a nationally consistent framework that sets:
 - how risks to freshwater should be assessed in a farm plan.
 - a process for certifying that the actions in a farmer's plan will appropriately manage those risks.
 - a process for auditing the farm plan – so councils know whether actions in farm plans are being done.
6. The farmer owns their farm plan. A farmer chooses a certifier and auditor to review their plan. The results of a certification or audit are reported to the council – but the farmer's plan itself is kept private.
7. The system does not require that a specific template be used. Farmers can use their existing industry plans (like Fonterra's Tiaki plan) to meet requirements.
8. Councils are responsible for producing catchment information which decides the specific risks that a farm plan needs to manage for that area. Councils also appoint and monitor certifiers and auditors.
9. As industry have advocated for, FW-FPs can be used as an alternative to resource consents. Currently, farmers can use a FW-FP to undertake intensive winter grazing (rather than get a consent). In future, FW-FPs could be used to support farmers in meeting farm level climate goals.

The role of Industry Assurance Programmes in the system

10. Industry can already use their existing farm planning programmes to meet FW-FP requirements. However, industry assurance programmes (IAPs) run their own

separate verification processes (often to meet international export needs). Therefore, IAPs want a pathway by which their existing verification processes can be deemed to meet FW-FP certification and audit requirements.

11. The RMA was changed to allow for this. MfE is also pulling together an advisory group made up of IAPs and industry to co-develop this pathway. NZ's key markets are increasingly focused on sustainability. We consider supporting IAPs to align with FW-FPs important to telling a consistent and well evidenced freshwater story internationally.

How farmers and industry will experience the current FW-FP system

12. Under the current system, a farmer needs to seek to have their plan certified within 18 months of the regulations applying in their area. After that initial certification, a farmer will need to have their plan re-certified every five years.
13. A year after first having their plan certified, a farmer will need to have that plan audited. The frequency of subsequent audits will depend on the audit grade received. A farmer who got an A grade wouldn't need to have their plan audited for another 3 years. A farmer who got a D grade would need to have their plan audited in 6 months.
14. We estimate that at least 10,000 – 12,000 (of the approximately 34,000 farmers and growers who need a FW-FP) can meet these certification and audit requirements through existing industry plans. Fonterra have already updated their existing farm plans (Tiaki plans) to meet FW-FP requirements. Farmers who don't already have a farm plan would need to develop one.

Current roll out of FW-FPs

15. FW-FP regulations came into force on 1 August 2023. So far, they have been applied (by Order in Council) to Southland and Waikato (from 1 August 2023), Otago and West Coast (from 1 February 2024), and will go live in Horizons from 1 April 2024.
16. Rolling out FW-FPs in further regions requires decisions by Ministers. MfE currently proposes that FW-FPs next roll out in Taranaki, Marlborough, and Northland.



Meeting briefing: Meeting with the Environmental Protection Authority 12 February 2024

Date submitted: 9 February 2024

Tracking number: BRF-4183

Security level: In-confidence

Actions sought from ministers	
<i>Name and position</i>	<i>Action sought</i>
To Hon Penny SIMMONDS Minister for the Environment	Read before meeting at 1.15pm on Monday, 12 February 2024.

Actions for Minister's Office staff
N/A

Appendices and attachments
1. EPA Board Chair and Chief Executive biographies

Key contacts at Ministry for the Environment			
<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Tiffany Vail		✓
Responsible Manager	Ngairé Best	027 399 3600	
Chief of Staff	Martin Workman	022 517 3268	

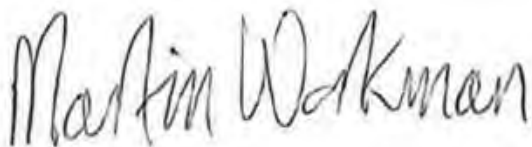
Meeting with the Environmental Protection Authority

12 February 2024

Purpose

1. You are meeting with the Environmental Protection Authority (EPA) at 1.15pm on 12 February 2024 in your office. This meeting is an opportunity for you to discuss your views on the EPA's performance in general, and to outline your priorities and expectations for the EPA for the year ahead.
2. This briefing provides you with background context and suggested talking points in an annotated agenda. Biographies of the EPA Board Chair and Chief Executive are contained in Appendix One.
3. The EPA Attendees are:
 - Colin Dawson, Board Chair
 - Dr Allan Freeth, Chief Executive
 - Annie Williams, Principal Advisor, Government Engagement
4. The Ministry for the Environment (the Ministry) attendee is:
 - James Palmer, Secretary for the Environment

Signature



Martin Workman

Chief of Staff

Office of the Chief Executive

Date: 9 February 2023

	Annotated Agenda
1.	Your priorities and expectations for the EPA - As responsible Minister you “<i>participate in the process of setting the entity’s strategic direction and performance expectations and monitoring the entity’s performance</i>” (section 27 of the Crown Entities Act 2004). - We recommend you outline your performance expectations for 2024/25 to the EPA, which could include the following. - Alignment with government priorities. - Fiscal sustainability and managing within agreed budgets. - Quality performance information, measures and reporting. - Identifying options to reduce processing times for hazardous substances applications. - Working with the Ministry to progress the recommendations of the Parliamentary Commissioner for the Environment’s Report: <i>Regulating the environmental fate of chemicals</i>. - Maintaining a functional and fit for purpose Emissions Trading Scheme (ETS) Register. - Supporting fast-track consenting processes and the development of replacement legislation. - Your expectations can be reinforced through your 2024/25 Letter of Expectations (LOE). The Ministry will shortly be providing you with a draft LOE for consideration. - We recommend you set up regular (e.g., quarterly) meetings with the EPA’s Chair (and Chief Executive). This would give you the opportunity to regularly discuss service and financial performance, risks, and opportunities. - You may also wish to attend an EPA Board meeting to outline your priorities and expectations for the year ahead. The Ministry understands the EPA would welcome your attendance.
2.	Briefing to the Incoming Minister The EPA provided you with its Briefing to the Incoming Minister (BIM), including a supplementary Hazardous Substances BIM and a copy of the Sapere Report: <i>The EPA’s role and performance in assessing hazardous substances</i> on 30 November 2023. The BIM documents are publicly available on the EPA’s website.
2 (a)	Hazardous substances applications As you are aware, due to funding constraints and insufficient staff resources in recent years, the EPA has not been able to process the volume of hazardous substances applications it receives in a timely manner and there is now a backlog of applications waiting to be processed.

	• The EPA has been taking steps to improve the efficiency of its hazardous substances functions including: - o moving to the Globally Harmonised System of Classification and Labelling of Chemicals - o updating the database for storing chemical and substance information - o implementing a programme of prioritised reassessments of already-approved substances. • In addition, in Budget 2023 the EPA received cost pressure funding of \$6.1 million over four years to increase hazardous substances capacity. This funding provided for seven additional full-time staff – four in 2023 and another three from July 2024. We understand that recruitment for these roles is under way. • The Ministry notes that it will be challenging for the EPA to address hazardous substances performance, and implement wider process improvements, without an appropriate increase in funding or the reprioritisation of its existing work programme. ➤ <i>You may wish to ask the EPA what further actions, including legislative change, could be taken to improve performance.</i> ➤ <i>You may wish to ask the EPA to provide you with reporting on performance against the statutory processing timeframes in its quarterly reporting.</i> Sapere Report: The EPA's role and performance in assessing hazardous substances • The EPA commissioned an independent report from Sapere Research Group completed in late 2023 considered the EPA's hazardous substances functions against comparable overseas regulators. The report states the EPA's costs-per-application basis is efficient, and once it begins assessing applications, assessment work is completed within a timeframe comparable with that of overseas regulators. • The report also states that the EPA could look to increase its application fees, however, this is unlikely to fully address resourcing challenges. Note in 2023 the EPA increased fees by around 10 percent to reflect increased staff costs. • The Ministry is yet to review the report in detail or discuss its conclusions and any recommendations with the EPA.
2 (b)	'Trusted Regulator' Amendment • Recent amendments to the Hazardous Substances and New Organisms Act 1996 (HSNO Act) enable the EPA to make greater use of information from specific overseas regulators (Australia, Canada, the European Union, the United Kingdom and the United States) to expedite some of its rapid assessment and reassessment work.

	• The EPA must still consider the New Zealand context and the expedited process may not be appropriate for complex applications. For these applications, in line with international best practice, the EPA needs to assess a range of technical studies, model the potential impacts, and establish controls that recognise the specific New Zealand context. • The EPA is reviewing existing applications to identify those that may be appropriate for assessment using the new pathway and expects to start using the pathway in the first half of 2024. • The EPA provided you with a briefing on the implementation of the HSNO Act amendments on 23 January 2024. ➤ <i>You may wish to ask the EPA's view on any challenges associated with using the new assessment pathway or any other barriers.</i> ➤ <i>You may wish to ask if the EPA considers there is scope for greater use of the new assessment pathway.</i>
2 (c)	EPA Budget 2024/25 budget • Through the Initial Baseline Exercise that forms the basis of Budget 2024, the EPA advised the Ministry that it is proposing to deliver a break-even budget from 2024/25 onwards. Returning to break-even will require the EPA to make significant reductions in expenditure. The EPA has been operating a deficit model since 2017/18, which is no longer sustainable due to depleting cash reserves, inflationary pressures and an expanded role. • To achieve a break-even budget the EPA advises it will focus on: - o scaling back sector engagement and education activity - o downsizing office space and removing car parking options (plans for an office move are under way) - o reducing investment in the ETS Register by focussing on maintenance rather than planning for upgrades or a replacement Register. • The EPA advises that the outcome of its strategic and operating model reviews (due for implementation by 1 July 2024) will support a fit for purpose business model and the delivery of break-even budgets going forward. ➤ <i>You may wish to ask the EPA how it will manage any risks associated with its proposal to return to break-even.</i> 2023/24 financial performance • The EPA has budgeted to deliver a deficit of \$3.982 million in 2023/24. Following a reforecast exercise in November 2023, the EPA is now forecasting to deliver a \$3.180 million deficit. The improved position is due to the EPA not recruiting to roles as staff leave while the strategic and operating model reviews are being completed.

	<i>MartinJenkins Functional and Funding Baseline review of the EPA</i> • The EPA commissioned MartinJenkins to review its baseline funding in 2022. The report noted the EPA makes good use of its available resources, but increases to its baseline funding have not kept pace with the increasing scope of its functions and inflationary pressures. • The report discussed two funding options to address the EPA's future financial pressures: 'do minimum' and 'sustain and build'. The second option suggested an additional ~\$100 million over four years in contrast to the ~\$31 million cost pressure funding (\$25.4 million for core operations and \$6.1 million for hazardous substances) the EPA received through Budget 2023.
3.	Any other business <i>Background information on the following items is provided in case they are raised.</i> <i>Board appointments</i> • The EPA may raise Board (re)appointments with you. We recommend you have this discussion in confidence with the Board Chair only. • The Board went through some changes last year, with three departures and two new appointments. The Board currently has six members, with five of their terms expiring in mid-2024, and one vacancy. The Ministry will provide you advice on the upcoming appointment round later in February. It will be important to ensure a balance between continuity and refreshment, and a focus on required skills and experience. <i>Quarter one 2023/24 performance (July to September 2023)</i> • You had a range of questions and feedback on the EPA's quarter one performance report (BRF-4046 refers). The EPA provided responses to your office on 23 January 2024. ➤ <i>You may wish to further discuss the EPA's responses. You could also comment on the content or format of the EPA's quarterly report if there are ways it could better meet your needs.</i>

Appendix One: EPA Board Chair and Chief Executive biographies

Colin Dawson, Board Chair



Colin Dawson is a professional director who has held senior executive positions in the health care and research sectors.

He is currently Chair of Landcare Research | Manaaki Whenua and Deputy Chair of the New Zealand Institute for Plant and Food Research. He also chairs biotechnology and health companies and is the Independent Chair of the Ember Wellbeing Trust.

His background is in veterinary practice. He specialised in avian health and went on to work on a number of native bird conservation projects.

Mr Dawson owns a cherry orchard and small vineyard in Central Otago, and is committed to responsible horticulture practices. He is also involved in a native species planting programme in Northland.

He is a graduate of The University of Auckland Business School, a Senior Executive Programme alumnus of the Stanford University Graduate School of Business, and a Chartered Fellow of the Institute of Directors in New Zealand.

Mr Dawson's term on the EPA Board is from 4 September 2023 to 31 August 2024.

Dr Allan Freeth, Chief Executive



Dr Allan Freeth has extensive governance and management experience across the business, cultural, and public sectors.

Dr Freeth's previous managerial roles include Chief Executive of TelstraClear Limited and Chief Executive/Managing Director of Wrightson Limited. Prior to that, he held senior management roles at Wrightson Rural and Trust Bank New Zealand Limited.

His previous governance roles include Chair of Triplejump and Housing New Zealand Corporation, and Chairman of the Advisory Board of Global Film Solutions. He has also had previous roles in the not-for-profit sector as Chair of Queen Margaret College, and Save the Children New Zealand, Deputy Chairman of Film NZ, and a Director of the Malaghan Institute.

At present he is a Director of Crimestoppers and a Trustee on the Queen Elizabeth II Army Memorial Museum Trust.

Dr Freeth holds a Bachelor of Science (Hons) in Zoology, a Doctorate in Philosophy in Population Genetics, and a Master of Business Administration.

Dr Freeth has been Chief Executive of the EPA since September 2015.



Briefing: Environment Southland's Exceptional Circumstances Application for Breach of the Air Quality Standards

Date submitted: 15 February 2024

Security level: In Confidence

MfE priority: Urgent

Actions sought from Ministers

<i>Name and position</i>	<i>Action sought</i>	<i>Response by</i>
To Hon Penny SIMMONDS Minister for the Environment	Agree the exceedance was caused by exceptional circumstances Sign the attached letter in Appendix 4	19 March 2024

Actions for Minister's office staff

Send the signed letter in Appendix 4 to Environment Southland by 19 March 2024.
Return the signed briefing to the Ministry for the Environment (RM.Reform@mfe.govt.nz) and ministerials@mfe.govt.nz).

Appendices and attachments

1. Application for exceptional circumstances from Environment Southland (19 December 2023) and additional information received (17 January 2024)
2. Table of previous applications under regulation 16A of the National Environmental Standards for Air Quality
3. Assessment against exceptional circumstances criteria
4. Draft letter to approve Environment Southland's application

Key contacts at Ministry for the Environment

<i>Position</i>	<i>Name</i>	<i>Cell phone</i>	<i>First contact</i>
Principal Author	Jacob McClintock		
Responsible Manager	Matthew Barbati-Ross	022 0102147	✓
General Manager	Jo Gascoigne		

Minister's comments

Environment Southland's Exceptional Circumstances Application for Breach of the Air Quality Standards

Key messages

1. This briefing seeks your decision on an application from Environment Southland (ES) under regulation 16A of the Resource Management Act (National Environmental Standards for Air Quality) Regulations 2004 (NES-AQ).
2. ES's application states that exceedance of the daily average particulate matter (PM₁₀)¹ air quality standard in the Invercargill Airshed (the airshed) on 14 December 2023 (the exceedance) was caused by exceptional circumstances beyond their reasonable control, namely an increased concentration of sea salt originating from specific weather conditions (refer Appendix 1).
3. If you accept that the exceedance was caused by exceptional circumstances beyond ES's reasonable control, it will not count towards the allowed number of exceedances in the airshed under the NES-AQ. If the number of exceedances is more than the allowed number over a five-year period, the airshed is classified as polluted and restrictions apply on other activities likely to increase the concentration of PM₁₀ in the airshed.
4. This is ES's first application for exceptional circumstances since the NES-AQ update introduced the exceptional circumstances provisions on 1 June 2011. Invercargill is currently classified as a polluted airshed having regularly breached the PM₁₀ standard, a further exceedance will extend the length of time the airshed is classified as polluted.
5. Decisions on eight previous applications have agreed that increased sea salt concentrations can be an exceptional circumstance when there is sufficient evidence that the event exceeds baseline levels.
6. We have reviewed ES's application. We agree that the exceedance was caused by exceptional circumstances and recommend that you approve the application because:
 - i unusual environmental conditions in the Southland area likely caused the exceedance on 14 December 2023.
 - ii the circumstances causing the exceedance were beyond the reasonable control of ES; and
 - iii approving the application would be consistent with the purpose of the Resource Management Act 1991 (RMA).
7. If you agree, please sign the letter in Appendix 4 notifying ES of your decision.

¹ PM₁₀ is a mixture of particles suspended in the air that do not exceed 10 micrograms in diameter.

Recommendations

We recommend that you:

- a. **note** that under regulation 16A(3) of the Resource Management (National Environmental Standards for Air Quality) Regulation 2004, you may decide that an exceedance was caused by exceptional circumstances only if you are satisfied that the exceedance was caused by exceptional circumstances beyond the reasonable control of Environment Southland.
- c. **note** that your decision will be published on the list of exceptional circumstances application on the Ministry for the Environment's (the Ministry) website.

either (recommended)

- d. **agree** that under regulation 16A(3) of the Resource Management (National Environmental Standards for Air Quality) Regulation 2004, the exceedance of the daily average PM₁₀ standard in the Invercargill Airshed on 14 December 2023, was caused by exceptional circumstances beyond the reasonable control of Environment Southland; and

Yes | No

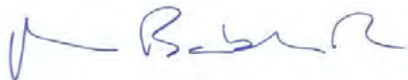
- e. **sign and send** the attached letter in Appendix 4 to Environment Southland serving notice of your decision.

or

- f. **meet** with officials for further discussion.

Yes | No

Signatures



Matthew Barbaty-Ross
Manager – Resource Management Systems Team
15 February 2024

Hon Penny Simmonds
Minister for the Environment
[Date]

Exceptional Circumstances Application by Environment Southland for Breach of Air Quality Standards

Analysis and advice

You have powers to determine whether an exceedance of the NES-AQ was caused by exceptional circumstances

1. The NES-AQ sets ambient air quality standards for five contaminants: carbon monoxide, ozone, nitrogen dioxide, sulphur dioxide and PM₁₀. Regional councils must monitor these standards and give public notice if standards are exceeded within their airshed(s).
2. The NES-AQ allows a limited number of exceedances of these standards for each contaminant over a set timeframe (Schedule 1 NES-AQ). These are called 'permissible exceedances' and for PM₁₀ only one exceedance is allowed per 12-month period. If an airshed exceeds an average of one exceedance per year over a five-year period, it is then considered a polluted airshed and restrictions apply that limit resource consents for other activities that emit PM₁₀ in that airshed.
3. Under regulation 16A of the NES-AQ you may decide that an exceedance was caused by exceptional circumstances and that it does not count towards the total number of permitted exceedances only if you are satisfied that the circumstances were beyond the reasonable control of the regional council. You must give written notice to the regional council of your decision no later than three months after the day the application was received (in this case by 19 March 2024).

We agree that the exceedance was likely caused by an increase in sea salt concentrations due to weather conditions

4. Environment Southland (ES) stated that the exceedance was caused by an increase in sea salt concentrations due to weather conditions.
5. ES also noted in their application that Australian bush fires may have played a role in the exceedance event. The Ministry's analysis is that sea salt was the primary cause of the exceedance rather than another source because there was a lack of black carbon on the monitoring equipment's filter, which would indicate a bush fire source.

We consider the exceedance was on balance likely caused by exceptional circumstances beyond the reasonable control of ES

6. We have reviewed the evidence and assessment provided by ES against the criteria² used to assess exceptional circumstances (refer Appendix 3). We agree that the exceedance was likely caused by exceptional circumstances as set out below:
 - i **Causation:** ES has provided evidence suggesting that the exceedance was caused by a high wind event that originated from the Southern Ocean and contained an increased concentration of sea salt particles.
 - ii **Control:** The circumstances which led to the exceedance were beyond the reasonable control of ES because the source of the exceedance was not anthropogenic.
 - iii **Foreseeability:** Whilst the circumstances giving rise to increased levels of sea salt are foreseeable, this was caused by unusual specific weather conditions.
 - iv **Frequency and likelihood of reoccurrence:** This event is uncommon, and likelihood of reoccurrence is uncertain as this event was caused by unusual specific weather conditions. We note that this is the first application of this type from ES since the NES-AQ requirements came into effect in 2011.
 - v **Application would be consistent with the purpose of the RMA:** As the most likely source of the exceedance is due to weather conditions, granting an exception would be consistent with the purpose of the NES-AQ to manage anthropogenic (human) sources of air pollution adversely affecting human health. Granting the exception will not unnecessarily constrain activities by extending the restriction of being classed as a polluted airshed longer than necessary. We note that Invercargill is currently classified as a polluted airshed having regularly breached the PM₁₀ standard, a further exceedance will extend the length of time the airshed is classified as polluted.
7. Appendix 3 provides a more detailed assessment ES's application against the criteria for exceptional circumstances.

Your decision will ensure the accuracy of the exceedance record for ES

8. If you approve the application, your decision will ensure the record of PM₁₀ exceedances for ES does not misrepresent natural events as anthropogenic exceedances. It is important that the record does not overstate the number of exceedances for any airshed as it determines whether the air pollution in the airshed is at an acceptable level.

² 2011 User's Guide to the revised National Environmental Standards for Air Quality (Ministry for the Environment, 2014)

Te Tiriti analysis

9. As a Minister of the Crown, you can engage with hapū, iwi, and Post-Settlement Governance Entities in the context of wider te Tiriti/Treaty of Waitangi considerations when making statutory decisions³. The Ngāi Tahu Claims Settlement Act 1998 which gives effect to the Deed of Settlement signed by the Crown and Te Rūnanga o Ngāi Tahu is relevant to the Southland area. Through the settlement the Crown acknowledged Ngāi Tahu rangatiratanga within the takiwā, which includes Southland, however the settlement does not include a specific requirement to consult on matters regarding air quality.
10. There is no requirement in the NES-AQ for you to consult on this application. As a decision-maker under the RMA, you are required to recognise and provide for the relationship of Māori with their ancestral lands, water, sites, wāhi tapu and other taonga⁴. You are also required to take into account the principles of the Treaty of Waitangi.
11. In this instance, it is reasonable to proceed without engagement on the basis that the proposed decision is administrative in nature and relates to a non-anthropogenic source for the PM₁₀ exceedance.

Other considerations

Consultation and engagement

12. No consultation was undertaken given the administrative nature of the decision in this instance.

Risks and mitigations

13. We consider the risk of approving this application is low.
14. Nationally, 24 applications for exceptional circumstances have been granted, of which eight were due to increased concentration of sea salt particles.

Legal issues

15. ^{9(2)(h)}
- 

³ Resource Management Act 1991, section 8.

⁴ Section 6(e).

16. 9(2)(h) .

Financial, regulatory and legislative implications

17. No financial, regulatory, or legislative implications are associated with the proposals in this briefing.

Next steps

- 18. A draft decision letter to approve the air exceedance application requested by ES is attached in Appendix 4 for your signature.
- 19. If you are considering declining the air exceedance application, we recommend discussing this matter with officials.
- 20. Once the decision is finalised, it will be included in the public register of exceptional circumstances applications on the Ministry's website.

Appendices

Please see appendices as attached via email to the Minister's office.

Appendix 1: Application for exceptional circumstances from Environment Southland (19 December 2023) and additional information received (17 January 2024)

OFFICE USE ONLY	 Ministry for the Environment <i>Manatū Mō Te Taiao</i>
Application no:	
Date received:	
Date accepted:	

Resource Management (National Environmental Standards for Air Quality) Regulations 2004 – Regulation 16A Exceptional Circumstances

APPLICATION FORM

Before completing this form please read section 3.8 of the [2011 User's Guide to the revised National Environmental Standards for Air Quality](#).

Need more help? If you have any questions email info@mfe.govt.nz

Please send your completed application form and all attachments to info@mfe.govt.nz

1 Applicant details

Name of regional council	Southland Regional Council (Environment Southland)
Contact person	Dr Nick Talbot
Position	Team Leader: Air quality and Terrestrial Science
Email address	Nick.Talbot@es.govt.nz
Telephone number	03 211 5115
Mobile number	021 325 545
Postal address	Cnr North Rd &, Price Street, Waikiwi, Invercargill 9810

2 Details of exceedance event

Containment	PM10

Date of exceedance (application must be received within 3 months from date of the exceedance)	14 th December 2023	
Relevant airshed	Invercargill	
Monitoring station and technical specifications of monitor	FH62 BAM at Pomona Street Invercargill (Supported by a co-located T640x data)	
Summary of monitoring reading showing exceedance event	We had an exceedance on the 14 th December coinciding when a squall line (high wind event) came across the region from the SW. It appears this event advected natural aerosol across the region, reaching Pomona Street first, with the highest concentrations then, Winton (where we only measure PM2.5 and Gore Which did not peak as high.	
Analysis of baseline data	24-hr NES standard for PM10 showing 58.8 micrograms / m ³ . Peaks in data were also found in Gore and Winton. Interestingly, Gore values were similar to Invercargill showing the macroscale nature of the event (weather front advecting marine aerosol). However, the Gore peak did not last as long and therefore the data aggregation did not exceed the 50 micrograms / m ³ value.	
Source speciation or other analysis	We can compare the BAM data with a co-located T640. Both agree with the peak in concentrations, ruling out instrument error.	
Explanation of any previous exceedance event/s from this monitoring station in the past 5 years	The only previous exceedances are from wood smoke, where we had 4 exceedances during the winter of 2023. The natural aerosol events are quite rare down here but the proximity to the southern ocean does open the door to sea salt 'plumes'. Invercargill air quality site is only 1 km away from the ocean.	
Monitoring readings covering exceedance event	Attached	Not attached

3 Details of exceptional circumstances

Exceptional circumstances leading to exceedance	Localised impact on a monitor	Anthropogenic extreme event	Natural disaster or natural extreme event	Other
Explanation of circumstances leading to exceedance event	A squall line moved inland from the Sothern ocean, with Invercargill being the first to record the advecting aerosol and also recording the highest concentrations, hence the Invercargill airshed was the only one to breach NES for 24-hr. However, other regions were impacted by the event with Ecan recording daily average PM₁₀ of 49 µg/m3 in Washdyke the following day (with time delay as the front moves up the country). <i>Contact Teresa Aberkane to confirm</i>			

Reasons why these circumstances were beyond the reasonable control of the regional council	The natural sea salt intrusion was not confined to Southland. ECAN also recorded concentrations close to exceedance level on the 14 th and 15 th . Such an event cannot be accounted for or contained by policy or strategy at any level of governance and therefore to count it as an policy driven exceedance could misrepresent true PM10 levels across the impacted airshed.	
Supporting evidence (eg, meteorological report)	Attached	Not attached I could not find appropriate met data to show the event.



19/12/2023

Extra analysis

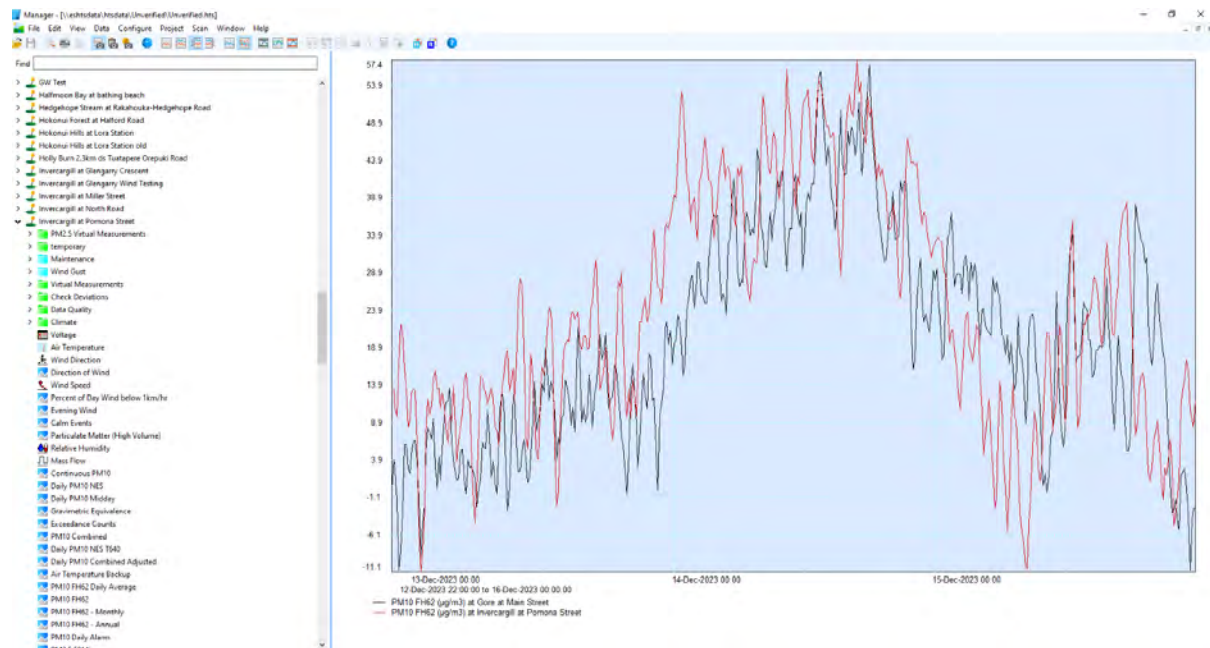


Figure 1 an overplot of the 14th December event showing Invercargill (Red) being impacted first followed by Gore. Which had similar peaks in 1 hour but for less long and therefore remained under the 24 hr PM10 NES standard. This shows that the 'event' was regional

Figure 2 24 hr NES PM10 data from the FH62 showing the 'freak' event on the 14th December. Such a standout 14 hr peak along with the previous and following days shows it was an exceptional event.



18th December 2023

For the attention of Hon Penny Simmonds

Minister for the Environment

Tēnā koe Minister

Re: Application under National Environmental Standards for Air Quality – regulation 16A Exceptional Circumstances.

On 14th December 2023, the National Air Quality Standard for 24-hour PM₁₀ was exceeded in the Invercargill urban airshed (Pomona Street Site). Consequently, Environment Southland is seeking a determination that these exceedances were caused by exceptional circumstances, namely, marine aerosol incursion. The information in support of this application is attached. If further information is required regarding this application, please contact Dr Nick Talbot; Team leader (Air and Terrestrial Science) on 021 325 545 or Nick.Talbot@es.govt.nz.

Thank you for your consideration in this matter.

Ngā mihi

Dr Nicholas Talbot.

Deep dive analysis of the 14th December PM₁₀ exceedance at Pomona St, Invercargill.

Nick Talbot (ES) and Perry Davy (GNS)

Overview of the situation

Invercargill had an exceedance of the 24 hour PM_{10} NES standard of $50 \mu\text{g}/\text{m}^3$ on the 14th December with the BAM at Pomona Street, Invercargill, reporting a 24 hr average of $58 \mu\text{g}/\text{m}^3$. Exceedances during summer have not knowingly been recorded for Invercargill previously and, therefore, the event warranted further investigation. It is important to note that Gore also reported anomalously high concentrations for the 14th with $45.4 \mu\text{g}/\text{m}^3$ (Figure 1). The event appeared to be region-wide. Environment Canterbury (ECAN) also reported elevated PM_{10} concentrations on 14/15th December. Started mid-morning on 14th to end of 15th in south Canterbury sites, with daily average PM_{10} on 15th Dec of $49 \mu\text{g}/\text{m}^3$ in Washdyke, $37 \mu\text{g}/\text{m}^3$ in Geraldine and $32 \mu\text{g}/\text{m}^3$ in Timaru (Teresa Aberkane, ECAN, Per Comms).

Figure 1 shows the hourly PM_{10} at Gore (red line) and Invercargill (blue line). The data shows that the cause of the high PM_{10} was not a localised event (from a point source).

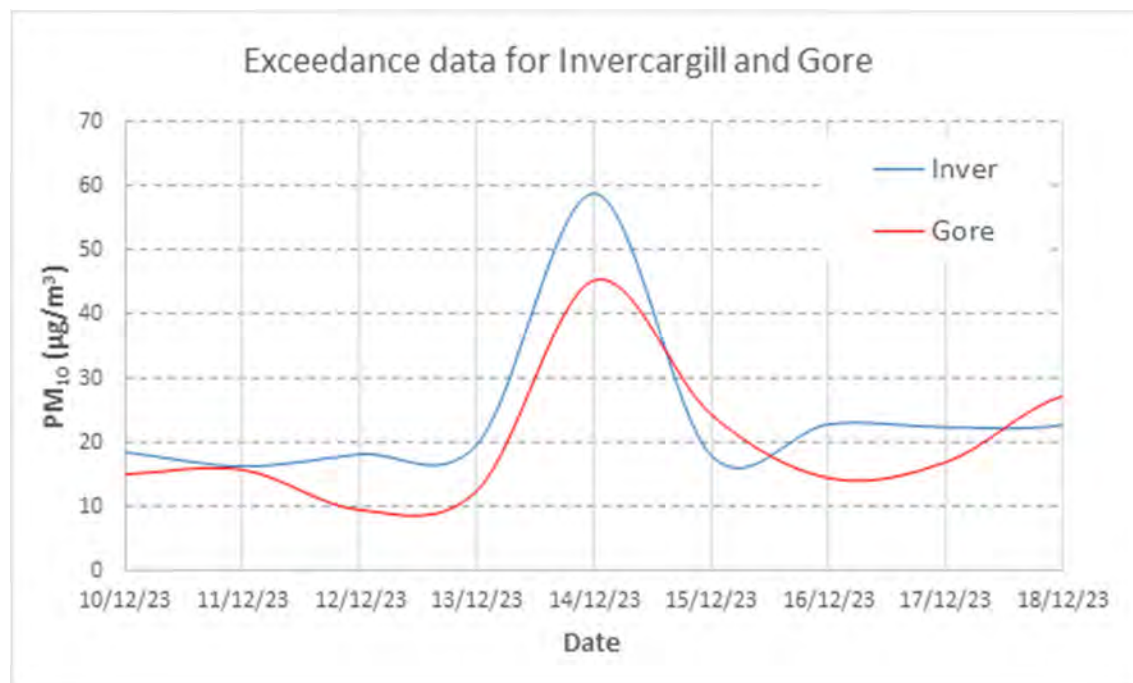


Figure 1 shows hourly PM_{10} BAM (FH62) concentrations for Gore (red line) and Invercargill (blue line).

Met analysis

Low pressure to the South West of New Zealand with a ridge of high pressure starting to cross the north of the north island. The day was windy and cool, however, Figure 2 shows that as the ridge moved from west to east, the wind shifted around the NW direction bringing in warmer temperatures. Figure 3 shows precipitation, temperature and wind speed for the week surrounding the 14th December. The preceding day (13th) was wet and windy with a drying and warming trend observed for the 14th in agreement with the synoptic observations of the SW wind shifting NW across Southland.

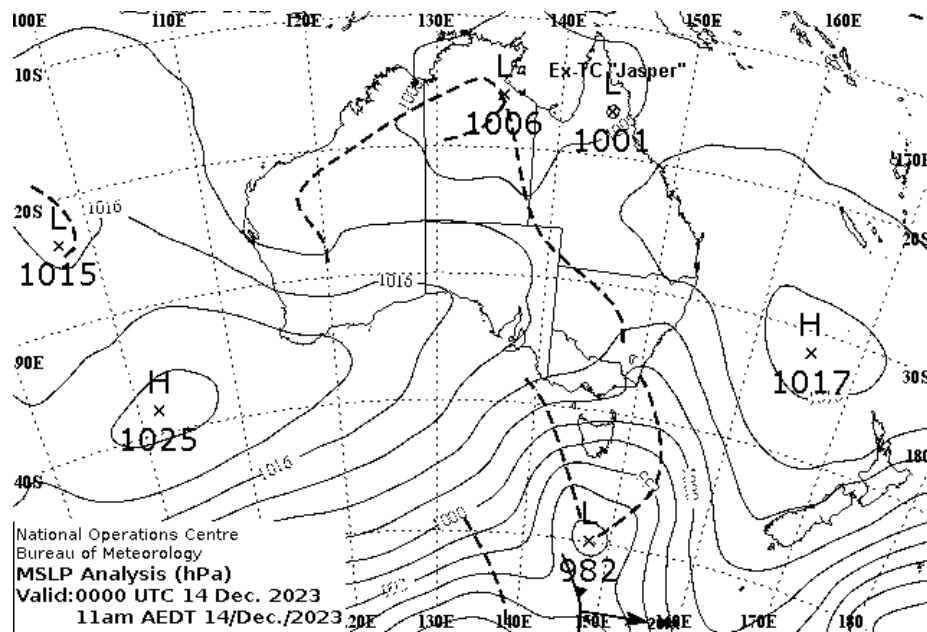


Figure 2 MSLP synoptic map for Middy (NZST) 14 December 2023.

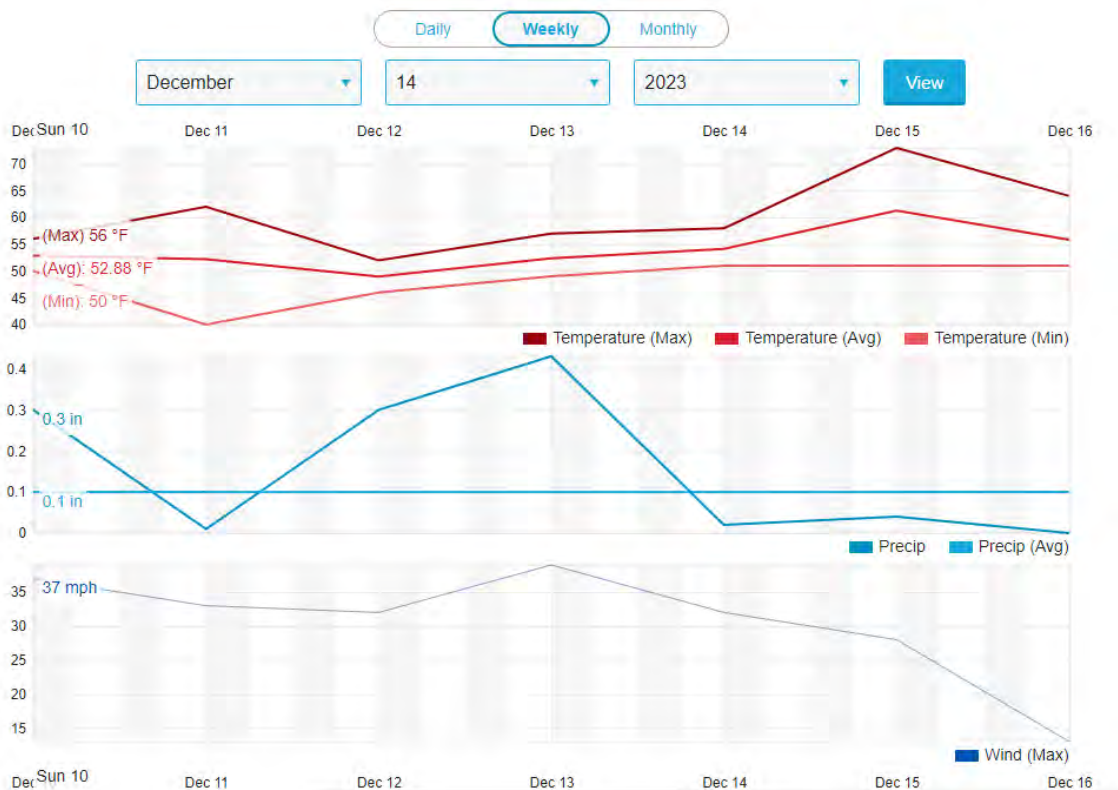


Figure 3 Invercargill airport air temp (Top) rainfall (middle) and wind speed (lower) are provided (taken from <https://www.wunderground.com/history/weekly/nz/invercargill/NZNV/date/2023-12-14>)

Back trajectory

Airflow from 72 hours at 3 different heights is investigated ending 14th Dec 15:00 hours (Figure 4). The flows from the 3 heights come from different directions. These closely match the synoptic outcome (Figure 1). The key factors on display are the Jetstream flow (green) bringing warm air (and potentially bush fire BC from Australia on 15th and 15th), abundant sea salt from the Sothern Ocean (red line) and mixing of the lower level flows. Also note the red line coming from the Sothern Ocean then turns south west to arrive from a NW direction over Southland. This will bring air to the surface downwards from the Alps to Southland, both drying and warming the flow.

Figure 4 Back trajectory flows run for 72 hours for 3 heights 500m (ground) 1500 m (mile up) and 3000 m (mid-level).

XRF analysis of the filters from GNS (P.Davy)

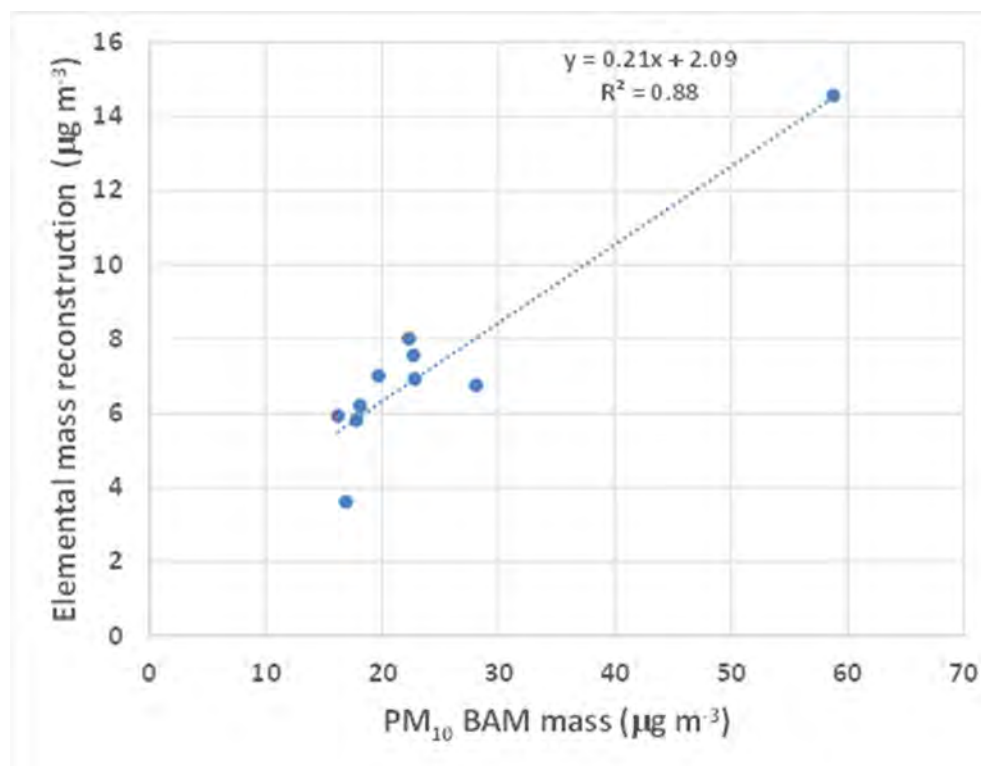


Figure 5 Elemental mass closure using BAM PM₁₀ data against elemental mass from the bam filter.

Figure 5 shows that the XRF analysis could account for 23% of the total mass that day. This is due to the effect of the glass fibre matrix of the BAM filter tape that precludes the analysis of some key elements (Al, Si, K, Ca, Ti) and is only considered qualitative for the rest. The black carbon measurement is separate to the elements and the concentrations derived for BC were quantitative. Despite this, the departure from 'normal' mass is evident.

Figure 6 elemental mass breakdown from the 14th December. The left chart shows the proportion representation of investigated species on the 14th. The right hand plot shows the total concentration including the 77% unaccounted mass.

On the 14th December the particulate was dominated by sea salt (Figure 6), represented by the Cl extraction.

Figure 7 Bar charts showing Black Carbon (BC), Soil, Sea-salt and non-sea-salt sulfate.

Figure 7 shows that the on the 14th Sea-salt was double the mass compared with other investigated days. The bar plot shows the absence of black carbon on the filter on the 14th December indicating that the high PM₁₀ was most likely not caused by wood burning or combustion processes.

Bringing the analysis together, it seems that the shift in airflow brought north weather features from the Southern Ocean, abruptly north-west up the west coast of the South Island then across the Southern Alps into Southland (before heading east). This flow is likely important as would cause the air (and associated particulates) to descend into the Southland area advecting sea-salt particulate into Invercargill, likely leading to anomalously high PM₁₀ values and causing the 24 hr exceedance value of 58 µg/m³. The merging of the low level flows in the back trajectories show descending air and associated aerosols from the rough Southern sea. The lack of black carbon on the filter on the 14th helps to eliminate local, regional or across Tasman fires as a main cause of the particulate mass on this date.

Appendix 2: Table of previous applications under regulation 16A of the National Environmental Standards for Air Quality

Application Date	Applicant	Airshed	Date of exceedance	Details of exceedance	Decision
9 April 2013	Environment Canterbury	Ashburton	9 January 2013	An exceedance of the PM ₁₀ standard occurred as a result of an interaction between two natural events, flooding followed by strong winds	Approved
5 June 2013	Auckland Council	Auckland Urban	7 March 2013	An exceedance of the PM ₁₀ standard occurred as a result of a large fireworks event held as part of the Auckland Arts Festival	Declined
7 August 2013	Waikato Regional Council	Hamilton	12 May 2013 – 6 June 2013	Eight exceedances of the PM ₁₀ standard over approximately three weeks were caused by significant road works located close to the monitoring station	Approved
19 September 2013	Otago Regional Council	Otago Airshed 3	27 July 2013	An exceedance of the PM ₁₀ standard occurred which was caused by coffee powder discharges, due to the failure of a valve in an instant coffee processing plant close to the monitoring station	Approved
25 July 2014	Hawke's Bay Regional Council	Awatoto	11 June 2014	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and moderate easterly winds throughout the day carrying sea salt to the monitoring station	Approved
3 September 2014	Auckland Council	Auckland Urban	July - August 2014	13 exceedances of the NO ₂ standard were caused by emissions from a diesel generator temporarily located close to the monitoring station	Approved
28 October 2014	Bay of Plenty Regional Council	Bay of Plenty	3 August 2014	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and moderate northerly winds throughout the day carrying sea salt to the monitoring station	Approved
23 December 2014	Hawke's Bay Regional Council	Awatoto	1 October 2014	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and moderate easterly winds throughout the day carrying sea salt to the monitoring station	Approved

Application Date	Applicant	Airshed	Date of exceedance	Details of exceedance	Decision
23 June 2016	Horizons Regional Council	Taumarunui	28-30 March 2016	Four exceedances of the PM ₁₀ standard over six days were caused by unknown sources. The application was assessed based on previous years' levels for the site, the season the exceedances occurred, and the absence of visible smoke in the airshed during those days	Approved
28 July 2017	Hawke's Bay Regional Council	Awatoto	29 April 2017	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and moderate easterly winds throughout the day carrying sea salt to the monitoring station	Approved
7 September 2018	Hawke's Bay Regional Council	Awatoto	12 June 2018	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and moderate east to south-easterly winds throughout the day carrying sea salt to the monitoring station	Approved
29 April 2019	Environment Canterbury	Geraldine	1 February 2019	An exceedance of the PM ₁₀ standard occurred as a result of soil particles which were carried from the Southern Alps by north-westerly foehn winds, down towards the monitoring station	Approved
8 January 2020	Auckland Council	Auckland Urban	23 October 2019	An exceedance of the PM ₁₀ standard occurred as a result of smoke emissions from an accidental fire at the New Zealand International Convention Centre construction site	Approved
25 February 2020	Auckland Council	Auckland Urban and Auckland Rural	6 December 2019	There were three exceedances recorded at three monitoring sites in the Auckland Region, caused by smoke and dust particles from the 2019-2020 Australian dust storms and bush fires, which were dispersed across areas of the Tasman Sea by unusual wind flows	Approved
20 February 2020	Waikato Regional Council	Putaruru, Huntly and Waikato Region	6 December 2019	There were exceedances recorded at five monitoring sites in the Waikato Region which was caused by smoke and dust particles from the 2019-2020 Australian dust storms and bushfires, which were dispersed across areas of the Tasman Sea by unusual wind flows	Approved

Application Date	Applicant	Airshed	Date of exceedance	Details of exceedance	Decision
27 February 2020	Bay of Plenty Regional Council	Mount Maunganui, Bay of Plenty Region	6 December 2019	There were exceedances recorded at five monitoring sites in the Bay of Plenty Region, caused by smoke and dust particles from the 2019-2020 Australian dust storms and bushfires, which were dispersed across areas of the Tasman Sea by unusual wind flows	Approved
27 February 2020	Tasman District Council	Richmond	7 December 2019	An exceedance was caused by smoke and dust particles from the 2019-2020 Australian dust storms and bushfires, which were dispersed across areas of the Tasman Sea by unusual wind flows	Approved
12 March 2021	Hawke's Bay Regional Council	Awatoto	13 December 2020	Three exceedances of the SO ₂ standard occurred as a result of an accidental car crash through sulphur storage shed in the Ravensdown Napier Works facility	Approved
30 April 2021	Bay of Plenty Regional Council	Mount Maunganui	2, 3 and 4 February 2021	Three exceedances of the PM ₁₀ standard occurred due to the disturbance of dust from heavy vehicle movement on unsealed roads during the runway maintenance work at the Tauranga Airport	Approved
8 September 2021	Bay of Plenty Regional Council	Mount Maunganui	9 and 10 June 2021	Two exceedances of the PM ₁₀ standard occurred as a result of a combination of high seas and south-easterly winds carrying sea salt to the monitoring station	Approved
20 July 2022	Bay of Plenty Regional Council	Mount Maunganui	21 April 2022	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and onshore winds carrying sea salt to the monitoring station	Approved
23 August 2022	Northland Regional Council	Whangārei	25 May 2022	An exceedance of the PM ₁₀ standard occurred due to a large vegetation fire at Paranui Valley Road	Approved
9 September 2022	Bay of Plenty Regional Council	Mount Maunganui	18 and 19 August 2022	Two exceedances of the PM ₁₀ standard occurred as a result of a combination of high seas and north-easterly winds carrying sea salt to the monitoring station	Approved

Application Date	Applicant	Airshed	Date of exceedance	Details of exceedance	Decision
25 July 2022	Auckland Council	Auckland Urban	9 to 17 June 2022	94 exceedances of the NO ₂ standard caused by emissions from a diesel generator temporarily located close to the monitoring station	Declined
17 November 2022	Auckland Council	Auckland Urban	19 August and 24 August 2022	Two exceedances of the PM ₁₀ standard due to increased ratio of sea salt particles originating from a regional weather event; and an exceedance of the NO ₂ standard due to emissions from a graffiti artist's stationary vehicle and spray paint fumes	Approved
24 May 2023	Bay of Plenty Regional Council	Mount Maunganui	19 April 2023	An exceedance of the PM ₁₀ standard occurred as a result of a combination of high seas and onshore winds carrying sea salt to the monitoring station	Approved
19 December 2023	Environment Southland	Invercargill	14 December 2023	An exceedance of the PM ₁₀ standard due a high wind event originating in the Southern Ocean carrying a higher concentration of sea salt particles.	Current application

Appendix 3: Assessment against exceptional circumstances criteria

1. Regulation 16A(3) of the NES-AQ states:

The Minister may decide that the exceedance was caused by exceptional circumstances only if he or she is satisfied that the exceedance was caused by exceptional circumstances beyond the reasonable control of the regional council.

2. Below is an assessment of the ES's application against the criteria contained in the NES-AQ User's Guide, which was produced to provide guidance to regional councils on whether an exceedance could be considered to be caused by exceptional circumstances beyond the control of the regional council. The key factors set out in the guide are:
 - i causation – whether the exceedance was caused by the events being assessed
 - ii control – the circumstances must be beyond the reasonable control of the regional council
 - iii foreseeability – an assessment of whether the circumstances were able to be reasonably predicted and/or planned for
 - iv frequency and likelihood of reoccurrence – an assessment of how unusual the events were
 - v purpose of the RMA – whether a determination that circumstances were exceptional is consistent with the purpose of the RMA.
3. You may find an assessment against these criteria helpful in making your decision against the statutory test in regulation 16A. The assessment covers the following points:
 - i the correct cause of the exceedance has been identified;
 - ii the cause is not foreseeable, frequent or likely to reoccur;
 - iii that cause is beyond the control of the regional council; and
 - iv granting the request is consistent with the purpose of the RMA.
4. Causation and control are criteria that are prescribed in regulation 16A(3) and must be considered when making a decision on an application. 'Exceptional circumstances' are not defined in the NES-AQ or the RMA however the Concise Oxford Dictionary (10ed) defines 'exceptional' as "unusual, not typical" and consideration of the foreseeability, frequency and likelihood of reoccurrence is relevant to that determination.

5. Nationally, ES's application is the 27th exceptional circumstance application received since the NES-AQ update for exceptional circumstances took effect on 1 June 2011. Details of other applications are provided in **Appendix 2**.

Causation

6. ES has submitted that the PM₁₀ exceedance on 14 December 2023 was caused by the high wind event that originated from the Southern Ocean and contained an elevated level of sea salt particles. This resulted in a 24-hour average PM₁₀ concentration of 58 µg/m³ which exceeds the NES-AQ PM₁₀ standard of 50 µg/m³.
7. The application includes PM₁₀ monitoring data for the Pomona Street monitoring station, as well as synoptic mapping, air temperature, rainfall and windspeed, back trajectory and elemental mass breakdown. The application also referred to data from monitoring stations in Gore and Winton which showed peaks in PM₁₀ concentrations at the same time showing the wider regional scale of the weather event that caused the exceedance.
8. The NES-AQ User's Guide¹ includes sea salt related events in its examples of events that could be classified as exceptional. ES's application provided data showing that sea salt concentration levels on 14 December 2023 were significantly higher than usual.
9. We agree that the evidence submitted by ES supports a finding that the exceedances were unlikely to have been caused by other factors. ES also noted in their application that Australian bush fires could have played a role in the exceedance event. The Ministry's analysis is that sea salt is likely the primary cause for the exceedance because there was a lack of black carbon on the monitoring equipment's filter, which would indicate a bush fire source.
10. Therefore, we consider that the exceedance recorded at the Pomona Street monitoring station was likely caused by a high wind event that originated from the Southern Ocean and contained an elevated level of sea salt particles.

Control

11. We consider that the circumstances which led to the exceedance were beyond the reasonable control of the ES because the source of the exceedance was likely not anthropogenic. ES has control over where to place the monitoring station, but it is unlikely that relocating the monitor could avoid exceedances caused by weather event with as wide a geographical scale as this.

Foreseeability

¹ Pages 42-43 of the User's Guide.

12. Whilst the circumstances giving rise to an increased concentration of sea salt from storm events may be foreseeable, this event was caused by unusual specific weather conditions. We note that this is the first application of this type from ES since the NES-AQ requirements came into effect in 2011.

Frequency and likelihood of reoccurrence

13. We consider that although these events are uncommon, it is not inconceivable for this kind of weather event to occur again in the future, particularly in the context of climate change. If this type of occurrence does become common, ES may wish to investigate whether there are options for the type or location of monitoring equipment that could better screen out exceedances caused by non-anthropogenic sources such as sea salt.

Purpose of the RMA

14. We consider that approving this application is consistent with the purpose of the RMA under section 5: to promote the sustainable management of natural and physical resources. This includes managing the use and protection of air in a way that enables people and communities to provide for their social, economic, and cultural well-being and their health and safety while safeguarding the life-supporting capacity of air and avoiding, remedying, or mitigating any adverse effects of activities on air quality.
15. We recommend taking a broad view of this assessment. Your decision should include consideration of the effect your decision will have on the operation of the regulatory system. If you decline the application, the Invercargill airshed will potentially retain its polluted status for longer. This will place restrictions on activities based on a PM₁₀ exceedance that is likely not anthropogenic.
16. On the basis of the circumstances of this application, we conclude that approving the application is more consistent with the purpose of the RMA and the operation of the NES-AQ than declining the application.
17. We consider the application shows that:
- i the exceedance was caused by a high wind event originating from the Southern Ocean containing elevated level of sea salt particles;
 - ii this specific combination of events was unusual;
 - iii the circumstances causing the exceedance were beyond the reasonable control of ES; and
 - iv granting the application is consistent with the purpose of the RMA.

Appendix 4: Draft letter to approve Environment Southland's Application

Nick Talbot
Team Leader Air and Terrestrial Science
Environment Southland
Private Bag 90116
Invercargill 9840

[DATE]

Dear Nick Talbot,

Application under the National Environmental Standards for Air Quality – Regulation 16A Exceptional Circumstances

Thank you for your application for a decision under regulation 16A of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NES-AQ) that the exceedance of the particulate matter standard in the Invercargill Airshed on 14 December 2023 was caused by exceptional circumstances. I am responding as the matter falls within my portfolio responsibilities as Minister for the Environment.

I have considered your application and the evidence you have provided about the exceedance recorded by the Pomona Street Monitoring Station on 14 December 2023 and the higher concentration of sea salt particles due to the specific unusual weather event.

Based on the evidence submitted, I am satisfied that the exceedance was caused by exceptional circumstances beyond the reasonable control of Environment Southland. As such, I have decided to approve your application under regulation 16A of the NES-AQ.

Yours sincerely

Hon Penny Simmonds
Minister for the Environment