Local Government Sector Climate Scenarios

FAQs

September 2025

Understanding what climate scenarios are and how you can use them to support your council's planning and decision making.

This guidance is designed to help council officers understand and apply the Local Government Sector Climate Scenarios in their planning and decision making. It provides practical, but high-level support for council officers in a wide variety of roles.

These FAQs cover:

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- How can councils support Māori capacity to engage in climate scenario work?

Whether you're just starting to explore futures thinking or looking to embed it more deeply into your work, this guidance offers a foundation for action.

1. Futures thinking

What are scenarios and pathways?

Scenarios look at evidence, signals and trends that we can see today, and extrapolate them into the future to answer the question “what might happen?” They always come in sets of 2 or more to ensure we recognize that they are part of a method for exploring uncertainty and the different ways that the future might play out. We call these different futures “pathways”.

What are scenarios for?

Scenarios enable us to identify and understand a wider range of risks we might encounter in the future than if we rely solely on our day-to-day experience and knowledge. They also help us spot opportunities to mitigate these risks, enhance council plans, improve service delivery, and choose the best time to take action. Once scenarios are in use, they can guide the identification of the data we need to monitor for early warning signs of risks becoming issues.

Climate scenarios provide cohesive stories about the future, bringing together the two strands of climate change for councils—mitigation and adaptation—into a single narrative. This can help stakeholders understand how decisions on emissions affect the degree of adaptation required later, and show the value of mitigation activities now in reducing future climate impacts on the community.

What scenarios are not

It’s important to note that scenarios are not predictions or forecasts. They don’t tell us exactly what will happen, or when – or even what we want to happen. Instead, they tell give us an indication of plausible futures that might happen, which will help you explore uncertainty, test decisions, and build resilience into long-term planning.

2. Foundational understanding

What are climate scenarios?

Climate scenarios are structured, “what if” stories about the future, focusing on different approaches to our reliance on fossil fuel use might affect our economy and society, through both the transition to a low carbon economy and increases in physical impacts due to the effect of climate change on the weather. They explore how conditions might change depending on the transition and adaption choices we make today, and in the near future.

Climate scenarios are based on the physical climate science and socioeconomic modelling frameworks developed by the UN Intergovernmental Panel on Climate Change (IPCC) as well as datasets developed by both International and New Zealand Research organisations . On top of this, we layer qualitative estimates on how additional material factors or drivers of change (e.g. policy settings, access to finance, etc), might affect each other and change over time.

These climate scenarios are not predictions. They don’t tell us exactly what will happen, or when. Instead, they help us think ahead by showing a range of plausible futures and considering how our strategies, plans, assets and communities might fare.

Why are climate scenarios important for local government planning?

Climate change brings uncertainty not just in weather patterns, but in how our communities, economies, and systems will respond. Climate scenarios help councils plan for both:

- Transition impacts as we shift to a low-carbon economy, including changes in energy, transport, land use, and local industries.
- Physical impacts like flooding, droughts, heatwaves, and biodiversity loss.

For local government, climate scenarios are tools to:

- Understand how climate change could affect infrastructure, services, and communities.
- Test long-term planning (like LTPs, infrastructure strategies and spatial plans) against different futures.
- Support conversations across council teams and with communities.
- Build resilience into decision-making by preparing for uncertainty.

Why aren’t climate scenarios used as forecasts?

While climate scenarios provide valuable insights, they come with uncertainties due to factors like human behaviour, technological change, and natural climate variability. Although they are based on data or models this does not mean they are predictions or forecasts; they outline a range of potential future pathways.

We can bring our own biases to climate scenarios, considering what we think is mostly likely based on our experience. Challenging ourselves to remember that climate change introduces new levels of uncertainty is important.

For councils, this means:

- Avoid relying on a single scenario or assuming one future is the “most likely.”
- Use climate scenarios to test plans across a range of conditions and timeframes.
- Focus on building adaptability and resilience to a range of climate scenarios into each decision.

Climate scenarios are most valuable when used as tools for exploring uncertainty, not trying to eliminate it. They help councils ask, “what if?” and to prepare for a range of outcomes — even while the exact future remains unknown.

The important thing to remember is that there is no single path forward for how climate change will impact councils. How the globe decides to tackle the reduction in greenhouse gas emissions has a direct impact on the climate that is experienced in Aotearoa New Zealand. These integrated scenarios seek to link how different paths for reducing emissions result in different temperature outcomes, that in turn will have different physical outcomes with social, environmental and economic implications.

3. The Local Government Sector Climate Scenarios process

The Local Government Sector Climate Scenarios present three distinct futures across key timeframes (2035, 2050, and 2100), helping councils plan for both near-term actions and long-term legacy decisions. They include both transition impacts (like changing regulations or community expectations) and physical impacts (like sea level rise), making them relevant across council functions, not just climate teams.

How were these climate scenarios developed?

The Local Government Sector Climate Scenarios were developed through a sector-wide collaboration involving councils, climate experts, and organisations that engage closely with the local government sector. Wellington City Council, supported by KPMG, provided project management support for the scenario process and led the Working Group, made up of representatives from 9 different organisations:

- Wellington City Council
- Queenstown Lakes District Council
- New Plymouth District Council
- Local Government Funding Agency
- Tauranga City Council
- Greater Wellington Regional Council
- Northland Regional Council
- Hutt City Council
- Hamilton City Council

The process was designed to reflect the unique needs and responsibilities of local government in Aotearoa. It involved a series of workshops attended by 30 local government organisations as well as LGNZ, DIA and Taituara, and co-design sessions to ensure the climate scenarios were grounded in real-world planning contexts.

The Working Group led key decisions about the architecture that underpins the climate scenarios including:

- The timeframes they would consider: 2035, 2050 and 2100.
- The scope of the climate scenarios: the local government sector across Aotearoa New Zealand.
- What global models would be used to inform the pathways we considered:

	IPCC		Network for Greening the Financial System	Climate Change Commission	International Energy Agency
	Shared Socioeconomic Pathway	Representative Concentration Pathway			
Acting now for our mokopuna	SSP1: Sustainability	RCP 2.6	Net Zero 2050	HTHS	NZE
Leaving it to the next generation	SSP2: Middle of the Road	RCP 4.5	Delayed Transition	HTLS	SDS
Inheriting a broken world	SSP3: Regional Rivalry	RCP 7.0	Current Policies	Reference	STEPS
Sources for parameters	SSPs - SSP Database	*IPCC*	*NGFS*	*CCC*	IEA

Scenario framework

The Working Group and wider participants worked together to identify key drivers of change or external factors for local government's ability to deliver services. We used the 'PESTLE' framework (see the categories below) with the addition of Te Ao Māori to provide structure and create space to consider different external factors.

The Working Group then mapped out how each of these drivers could play out under each scenario and time horizon, paying particular attention to the impacts on the ability to meet service demand and on funding sources.

PEST(T)LE categories	Key drivers of change	Income			Expenditure	
		Central government funding	Local ratepayer capacity	Portfolio investment performance	Demand for services	Cost and deliverability of services
Political	Central government expectations of local government Central government climate action					
Environmental	Acute physical impacts Ecosystem wellbeing					
Social	Social licence of local government Climate literacy of local leaders Changing demographics					
Technological	Availability of transition technology					
Te Ao Māori	Expectations for council to give effect to Te Tiriti o Waitangi Expectations from mana whenua / local iwi for meaningful partnership					
Legal	Legal system response					
Economic	Performance of the national economy					

Drivers of change

The full process can be found below:

Project co-design and kick-off

We established the Working Group and agreed the scope and boundaries for our work.

With KPMG's support, we agreed our scenario framework, including architecture and parameters.

To support sector-wide engagement, we hosted a webinar to bring the sector along the journey with us.

Driving forces and storyline development

We ran two workshops with an attendance from 30 councils across Aotearoa. In these we:

- Identified and agreed on the external drivers of change that influence local government's ability to deliver services (aka 'drivers').
- Developed scenario narrative storylines based on key service areas.

The outputs were reviewed and prioritised by the Working Group where required.

Scenario narratives

The workshops and Working Group insights informed the scenario narratives. The Working Group also undertook an exercise to directly map drivers against local government funding sources and service delivery cost/demand and develop the **key assumptions driving change** that underpin each of the narrative time horizons

Where relevant, we drew on existing sector scenarios to support consistency and acknowledge local government's integration with so many other sectors.

Guidance and refinement

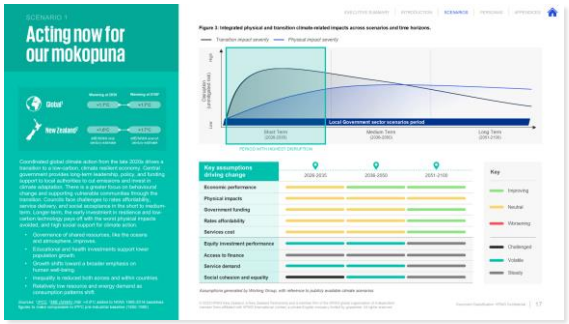
To support the usefulness of the sector scenarios to councils, the Working Group and KPMG developed guidance for utilising them at a local level.

This was developed based on feedback through the workshops, Working Group insights and KPMG's previous experience developing sector and entity-level scenarios.

April May June July August

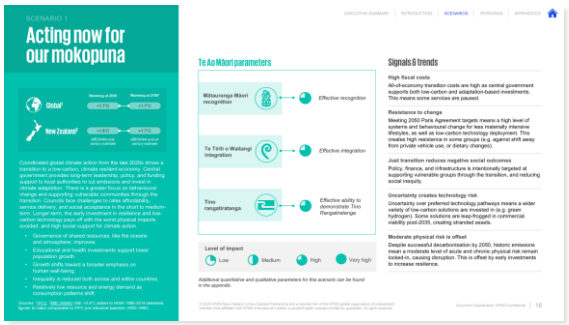
How do I interpret the scenarios?

The Local Government Sector Climate Scenarios include visuals and summaries to help council officers see the key assumptions and trends included in each scenario. Below we have provided a guide to these visuals to help you interpret the visuals and their meaning.



To set the scene for each scenario, a landing page with key elements including:

- Warming projections for both global and New Zealand contexts;
- A short summary of the scenario and key assumptions;
- A graph visualising the impact profile of the scenario (i.e. in which period does the most disruption happen?), and;
- Key assumptions driving change for local government within the period of highest disruption under this scenario. The first 5 assumptions, and their associated RAG rating, are included on the top right of the scenario narrative pages.



An overview of parameters and key signals and trends used to guide the scenario narratives.

This page includes:

- Te Ao Māori assumptions within each scenario and their level of impact, and;
- A summary of the most notable signals and trends under each scenario - these are the key features for local government to consider and monitor.

An extended list of parrameters can be found in the appendix.

Narratives developed by the Working Group, based on the parameters/assumptions. These storylines explore how the future might play out under our different scenarios. Each scenario has 3x narratives, one for each time horizon:

SHORT TERM (2026-2035) **MEDIUM TERM** (2035-2050)

LONG TERM (2051-2100)

The narratives are structured consistently across key areas:

- International context
- National Level – Policy, Economy & Funding
- Regional Level – Income: rates Investments
- Regional Level – Demand: Service Cost & Deliverability
- Regional Level – Social Outcomes

Vignettes (in green boxes) are short, rich stories to bring the scenarios to life, and imagine what might be happening in each future.

4. Using these climate scenarios in practice

How can councils use climate scenarios in planning?

For these sector-wide climate scenarios, localising the information is what makes them most valuable. Climate scenarios help councils plan for the future by exploring how climate change might affect their communities, infrastructure, and services.

Climate scenarios complement existing council planning tools by adding a longer-term future-focused lens and providing a common set of pathways against which to assess risks and opportunities. They help test whether existing plans are resilient under different futures and can highlight where updates may be needed. By integrating scenario thinking into existing frameworks, councils can strengthen long-term planning and ensure strategies remain responsive to change. They can be used to inform areas including but not limited to:

- **Infrastructure planning** can be staged using adaptive pathways. For flood infrastructure for example, councils may choose to upgrade culverts or re-establish wetlands now, with future investment in flood barriers if rainfall intensity increases beyond certain thresholds or if housing is expected to become more densified in the area.
- **Transitional Impacts** such as changes in national climate policy, economic activity or evolving expectations around low-emissions living. Councils may need to plan for increased uptake of electric vehicles, changing building standards, or the economic implications of decarbonisation pathways aligned with Aotearoa New Zealand's emissions budgets and the Zero Carbon Act.
- **Land use and spatial strategies** can incorporate scenario insights to guide development away from high-risk zones, such as low-lying coastal areas or regions prone to wildfire, relocating communities, while also identifying zones that can meet additional future housing demand and changing community needs.
- **Public health and emergency preparedness** can consider demographic changes and potential shifts in transport modes to ensure public transport is equipped to support with emergency response or evacuations if private vehicle ownership declines.
- **Financial planning** can include scenario stress-testing to assess how climate risks might affect long-term service delivery costs, shifts in insurance markets, insurance liabilities, or infrastructure depreciation.
- **Service provision** may be challenged or constrained as funding is redirected towards transition or climate impact response. Scenarios can be used by councils to work with communities in exploring potential necessary trade-offs if climate action takes a priority. Equally they can help identify opportunities for innovation and operating agility such as equipping libraries as emergency response centres and investing in their resilience and accessibility.

While councils are already well established at making investment and planning decisions for decades to come, climate change introduces a new level of uncertainty. Climate scenarios provide a strategic tool to explore that uncertainty to complement existing processes.

How do I make a scenario relevant to my council's context?

To make climate scenarios more locally relevant, councils can **localise** them to their area, communities and context. The sector climate scenarios are designed to be a starting point that councils can build on. They offer a foundation so that councils are working from a shared view of how different futures might unfold for local government in Aotearoa New Zealand.

They will be most valuable when they are tailored to your council and there are a few steps councils can take to do this:

Review alignment:

Start by checking whether the scenario aligns with your planning timeframes, geographic risks, and community priorities. Are you using any assumptions in your current planning? If so, how are these similar or different to the assumptions in the sector climate scenarios?

Identify what is most relevant to your council:

These climate scenarios have been developed for council officers to use where they are relevant to their context. We have developed personas that speak to different council typologies, regions and demographics. Identify personas that have similar characteristics to your council and draw on this content to use locally.

Within the scenario narratives, we have explored how different trends or events might impact councils differently if they are, for example, urban or rural. If your council is rurally based, pull out the narrative sections that explore what happens for rural councils in that scenario.

Localise concepts and storylines:

At the same time, consider any gaps or differences. Are there unique circumstances in your council that aren't explored? Or is there a reason that a general trend would occur differently in your local economy? Can you play out how that driving force would impact your specific community? This is your opportunity to bring in more specific considerations from narratives that are national and high level.

You can adapt sector-wide climate scenarios by adding local data (see below), community input, and place-based narratives. If a scenario feels too general, consider how it could be grounded in your region's lived realities.

Some councils have already developed scenarios for their own area. These have a different focus from the local government sector scenarios, but utilise the same scenario architecture. For example, New Plymouth District Council's scenarios focus on the impact of climate change on the local energy and agriculture sectors, as they are both emission-intensive and the basis for the district's economic prosperity.

Consider each of the PESTTLE elements to identify what makes your council unique and focus in on the most important areas for extra narratives to support your targeted local planning.

P – Does your council have a strong political leaning or advocacy groups that are likely to chart a different course than to majority of NZ or be more impacted by policy shifts from central government?

E – What are the most acute physical climate impacts expected in our region (e.g. flooding, drought, coastal erosion) or how might ecosystem wellbeing be affected under different climate scenarios?

S – How might changing demographics (e.g. aging population, migration) influence service demand or what is the current level of climate literacy among local leaders and communities?

T – What transition technologies are available or emerging locally, are there digital tools or platforms that could support scenario engagement or monitoring?

T – What expectations do mana whenua and local iwi have for meaningful partnership in climate planning or what value does this engagement offer mana whenua?

L – How might the legal system respond to increased climate-related risks or failures in service delivery or are there anticipated changes to regulations that could impact long-term planning?

E – What are the implications of climate scenarios for local industries and employment or how resilient are council revenue sources (e.g. rates, central government funding) under different climate futures?

There is also further guidance on bringing Te Ao Māori engagement into localising these climate scenarios in section 6.

Downscale physical data:

As noted, these sector climate scenarios also aim to keep quantitative assumptions high level, particularly around physical climate impacts. This is due to the significant variability in how physical impacts may manifest across different regions. Some areas may face high coastal erosion, while others are threatened by heat stress.

Downscaling – bringing in local physical data and projections – helps identify local risks like coastal erosion, urban heat islands, or flood-prone areas, making it easier to apply climate scenarios to real-world decisions. You can use the scenario framework further up to check if more granular data is based on the same assumptions as the sector climate scenarios.

Climate scenario data can be sourced from a range of reputable institutions, including:

- **National meteorological agencies** (e.g., Earth Sciences New Zealand, formerly NIWA).
- **Universities and research centres.**
- **International organisations** such as the Intergovernmental Panel on Climate Change (IPCC).

Many councils also partner with local research institutions to develop tailored models and projections that reflect regional conditions and priorities.

The scenarios can help councils to consider what type of decisions made today would help to lead to different physical risk projections. This can enable councils to be adaptive in determining what physical risks to plan for by seeing how the world is, or is not, reducing emissions.

How do climate scenarios link to long-term planning documents (e.g., LTPs)?

Climate scenarios provide a strategic lens for councils to test the resilience of their Long Term Plans (LTPs). They help identify how climate risks and opportunities could affect service delivery, infrastructure, community needs, and financial sustainability over time.

Climate scenarios can be used to:

- Stress-test infrastructure investments under different climate futures.
- Inform asset management and renewal strategies.
- Increase awareness of potential future revenue shortfalls.
- Support risk-based financial forecasting, eg considering increasingly volatile energy and insurance costs, as well as increases in exceptional costs of response and recovery etc.
- Align climate adaptation goals with community wellbeing outcomes.
- Determine service approaches for high-emission services (such as transport).
- Identify future skills and capabilities that council may need to develop

For example, a council might run a scenario planning workshop with asset managers, finance staff, and planners. The team could explore how a “high emissions, high migration” future might affect infrastructure demand, insurance costs, and service delivery. Insights from the workshop can then be used to adjust assumptions in the LTP and identify areas where adaptive planning or further engagement is needed.

By embedding scenario thinking into LTPs, councils can ensure their plans remain flexible, future-focused, and responsive to uncertainty. You can find an example of how climate scenarios can be used for asset planning in this video.

Infrastructure strategies articulate the opportunities and challenges for infrastructure over a thirty-year timeframe. These strategies must incorporate natural hazard risks, make appropriate financial provision for those risks, and factor in potential growth or decline in demand for services. These scenarios can help councils to consider these matters across different plausible climate futures.

LTPs need to provide the forecasting assumptions that sit behind the financial estimates. Climate change is a key forecasting assumption across both the LTP and the Infrastructure Strategy. These forecasting assumptions need to be consistent and coherent. The climate scenarios can help to ensure that this occurs through linking the activity happening in the economy over the next 10-30 years to the long-term changes in climate. For instance, a council that assumes that high emissions economic activities continue to grow should not then assume a lower climate world for physical risk planning.

LTP forecasting assumptions often need to outline the degree of uncertainty around that forecast. If there is a high level of uncertainty then the Local Government Act (cl17, Sch10) requires the LTP to include an estimate of the effects of that uncertainty on the financial estimates. These scenarios can provide a basis for councils that consider there to be a high level of uncertainty around climate change to test alternative scenarios to provide that estimate. This can be an integrated approach across both what is happening to their local economy as well as additional severe weather events.

5. Using scenarios for engagement and collaboration

Climate scenarios bring together cohesive stories about the future. This approach brings together the two strands of climate change for councils – mitigation and adaptation – into one narrative. This can be useful for showing stakeholders how the decisions on emissions impact the degree of adaptation that will be required in the future. This can help show the value of mitigation activities now to reduce climate change impacts on the community in the future. They can reiterate that the most successful adaptation action is still to reduce greenhouse gas emissions in the first place.

How can councils use scenarios to engage elected members or non-climate teams?

Climate scenarios are powerful tools for cross-organisation engagement. They help translate complex climate data and key assumptions into relatable narratives that resonate with elected members, finance teams, infrastructure planners, service delivery teams, and other decision makers.

Councils can use climate scenarios to:

- Frame climate risks and opportunities in terms of service continuity, cost, and community impact.
- Facilitate strategic workshops or scenario walkthroughs.
- Use personas and visual aids to make scenarios tangible.
- Encourage systems thinking across departments.
- Raise awareness of the full spectrum of implications that climate change may have on the future of service delivery.

This approach helps build shared understanding and supports integrated decision-making across council functions. Councils can also share learnings and applications of these climate scenarios with each other – this was a particularly valuable part of the Local Government Sector Climate Scenarios development process.

How do the Local Government Sector Climate Scenarios link to other scenarios?

The local government sector is connected to so many facets of our daily lives, including other sectors that have already developed sector climate scenarios. The Local Government Sector Climate Scenarios were developed to interact with these, aiming to avoid duplication, such as considering new potential futures of the transport sector.

These sector climate scenarios can be particularly useful for council officers who want to explore a particular service area or sector. You can leverage elements of the narratives from different sector climate scenarios, but make sure you consider if there are any differences in the scenario frameworks. For example, some climate scenarios may use different SSPs to explore different levels of global warming and disruption.

Available Aotearoa New Zealand sector scenarios include:

- Transport Sector Scenarios – exploring future mobility, infrastructure, and emissions pathways.
- Retail Sector Scenarios – examining consumer behaviour, supply chains, and energy use.
- Seafood Sector Scenarios – considering ocean health, market dynamics, and regulatory change.
- Agriculture Sector Scenarios – exploring land use, food systems, and climate resilience.
- Energy Sector Scenarios – examining generation, distribution, and decarbonisation pathways.
- Climate Scenarios for the Construction & Property Sector – considering building and construction trends.
- Tourism Sector Scenarios – considering visitor trends, cultural impacts, and environmental pressures.

We also leveraged the Auckland Council and New Plymouth District Council Climate Scenarios in our work in order to support cohesion and comparability across local government climate scenarios.

These resources can help councils understand how climate and transition risks may affect local industries, employment, and community wellbeing — especially when used alongside localised climate data and community input.

6. Guidance on integrating Māori perspectives into climate scenarios

The Local Government Sector Climate Scenarios aim to utilise and demonstrate best practice for developing climate scenarios and for reflecting the unique elements of Aotearoa New Zealand. However, this project was constrained by budget and resources as our priority was to engage representatives from councils across the country. Leveraging experience from the integrated climate, nature and te ao Māori Seafood Sector Scenarios, we extended the traditional PESTLE drivers framework to include Te Ao Māori as a distinct category. While all the categories integrate and overlap with one another, this held space for specifically considering what external factors around partnership and iwi, hapū, and Māori communities could impact councils' ability to deliver services.

This guidance acknowledges that our process would have benefitted from the opportunity to engage more fulsomely with Māori Strategy teams and integrate ao Māori. It also aims to highlight where councils can ensure climate scenarios are truly reflective of their own region, by actively involving iwi, hapū, and Māori communities in their localisation. Māori hold deep, place-based knowledge and intergenerational relationships with the environment that are critical to understanding the full scope of climate impacts. Inclusion of Māori knowledge sets, perspectives and realities not only enriches scenario narratives, but also strengthens the validity and accuracy of the insights councils rely on for planning. Without this engagement, climate scenarios risk overlooking key dimensions of environmental change and community resilience.

This section offers high-level guidance for councils seeking to engage meaningfully with Māori in climate scenario planning. It is not a one-size-fits-all approach; Māori solutions are inherently localised, shaped by the unique environments, histories, and aspirations of each iwi and hapū. Councils are encouraged to approach this mahi with humility, openness, and a commitment to genuine partnership.

Why should councils engage hapū and iwi when localising climate scenarios?

Councils have a responsibility under Te Tiriti o Waitangi to engage with Māori as Treaty partners. Beyond this obligation, iwi and hapū hold deep, place-based knowledge and intergenerational relationships with the environment that are essential for understanding how climate change may affect local ecosystems, communities, and cultural values.

Engaging with Māori ensures climate scenarios are not only technically robust but also culturally grounded. This means acknowledging the significance of whenua, wai, maunga, and taonga species, and understanding how climate impacts may affect tikanga, kaitiakitanga responsibilities, and mana motuhake.

Effective engagement also supports councils in building trust, fostering long-term partnerships, and developing climate responses that are inclusive, resilient, and locally relevant.

Who should councils engage with?

Councils should identify:

- **Mana whenua** with ancestral ties to the region.
- **Iwi and hapū authorities** with statutory acknowledgements.
- **Māori advisory boards or strategy teams** within council.
- **Local Māori organisations** involved in environmental, cultural, or social wellbeing.

It's important to identify mana whenua with statutory acknowledgement of the area, starting with local iwi. Depending on the capability and resourcing of the iwi, the most appropriate solution may be the consultation of hapū, Māori community groups, or all of the above.

Begin internally by identifying staff who may have existing relationships or have been in contact with iwi in the past. This helps avoid double handling and ensures continuity in engagement. Councils should also be aware that Māori governance structures vary, and engagement should be tailored to reflect local tikanga and kawa.

When should engagement begin?

Engagement with iwi and hapū should begin at the earliest stages of scenario development, ideally during the scoping and design phase. Early engagement allows Māori to shape the focal questions, boundaries, and assumptions of the climate scenarios, rather than being asked to respond to a pre-defined framework.

This approach supports genuine partnership and avoids tokenistic consultation. Councils should also consider the timing of engagement in relation to iwi calendars, significant events, and capacity. Māori organisations may have limited availability due to overlapping commitments, so planning ahead and allowing time for meaningful kōrero is essential.

Internal coordination is key: councils should map out their engagement timeline and ensure Māori Strategy teams or staff with iwi relationships are involved from the outset.

What approaches are recommended for engagement?

Councils should adopt approaches that are relational, inclusive, and culturally safe. Recommended methods for engaging around climate scenarios include:

- **Kanohi ki te kanohi:** (face-to-face) hui, held at mutually agreed location whether it be marae, iwi office's or council building.
- **Co-design workshops:** where Māori participants help shape scenario narratives, drivers, and personas.
- **Whakawhanaungatanga:** investing time in relationship-building before diving into technical discussions.
- Use of Māori facilitators or advisors where available to guide engagement and ensure tikanga is upheld.

Engagement should be iterative, allowing for ongoing dialogue and refinement. Councils should also provide clear information about the purpose of engagement, how input will be used, and what outcomes are expected. Avoid overly technical language and ensure materials are accessible to a wide range of participants.

How can councils ensure climate scenarios are culturally grounded?

To ensure climate scenarios are culturally grounded, councils should integrate Māori perspectives into both the content and process of scenario development. This includes:

- Embedding Māori values and concepts (e.g., whakapapa, mauri, tapu, noa) into scenario narratives. Alternatively, working with mana whenua on a by-case basis to determine guiding values that will act as the foundation for engagement.
- Reflecting Māori aspirations, risks, and responsibilities such as the protection of taonga species, access to whenua, and the impacts of climate change on tikanga.
- Considering how climate change may affect relationships between Māori and local government, including governance, resource management, and service delivery.
- Culturally grounded climate scenarios are not just about inclusion, they are about authenticity and accuracy. Councils should work with iwi and hapū to co-author scenario content, ensuring it reflects lived realities and intergenerational knowledge.

What are some common mistakes to avoid?

Some common pitfalls in Māori engagement include:

- Treating engagement as a tick-box exercise rather than a genuine partnership.
- Assuming one Māori voice represents all. Māori communities are diverse, and engagement should reflect that.
- Engaging too late in the process, which limits the ability of Māori to influence outcomes.
- Failing to follow tikanga, which can damage relationships and trust.

Councils should also avoid overloading Māori partners with requests, especially if multiple departments are engaging simultaneously. Coordination across council teams is essential to avoid duplication and ensure respectful, efficient engagement.

How can councils support Māori to engage in climate scenario work?

Councils should approach engagement with mana whenua without assumptions about availability, capacity, or obligation. Iwi authorities and hapū often carry significant responsibilities, from housing and health to education and economic development, and may not have the time or resources to participate in every project, even those related to climate change.

Councils should ask: **What value does this engagement offer mana whenua?**

If the scenario work doesn't align with iwi aspirations or deliver tangible benefits, participation may not be feasible or appropriate.

In these cases, councils can:

- Acknowledge the response respectfully and keep the door open for future engagement.
- Offer to share outcomes and invite feedback later, when capacity allows.
- Explore alternative ways to include Māori perspectives, such as drawing from existing iwi management plans or previous engagement insights.
- Reflect on internal processes - are you offering enough time, flexibility, and reciprocity?

Engagement is a relationship, not a transaction. Councils should focus on building long-term trust, not just securing input for a single project.

Councils can play a proactive role in enabling Māori participation by recognising that engagement requires time, resources, and support. This might include:

- Providing funding or resourcing for iwi/hapū to participate meaningfully.
- Offering flexible engagement timelines.
- Supporting Māori-led climate initiatives that align with scenario work.
- Building long-term relationships that go beyond one-off projects.

Supporting capacity is not just about enabling participation, it's about honouring partnership and ensuring Māori communities can shape climate futures on their own terms.

Conclusion

Climate scenarios are powerful tools for councils navigating the uncertainty of climate change.

This guidance has aimed to support council officers in understanding how to use these climate scenarios in practical, locally relevant ways, across infrastructure, finance, strategy, and community engagement.

By applying scenario thinking, councils can stress-test decisions, explore risks and opportunities, and build resilience into long-term planning. The Local Government Sector Climate Scenarios are designed to be used, not just read. They're most effective when grounded in local context, shared across teams, and used to support inclusive, future-focused conversations.

Whether you're integrating climate scenarios into your LTP, engaging with your community around the future of local council services, or supporting cross-council collaboration, this guidance is here to help you take the next step.

Engaging with Māori in climate scenario planning is not merely a procedural step, it's a commitment to partnership, equity, and shared futures.

Councils have a responsibility under Te Tiriti o Waitangi to ensure Māori voices are not only heard but meaningfully included in shaping climate responses.

While this guidance has focused on localising climate scenarios, the principles of authentic, values-based engagement apply across all areas of council work. Building trust, respecting tikanga, and supporting Māori aspirations are foundational to resilient, inclusive governance.

To support councils in this journey, the following resources offer practical tools, strategic insights, and cultural frameworks to enhance engagement with Māori, not only for climate scenario work, but for broader planning, decision-making, and relationship-building.

Further resources can be found here:

- Scenarios and guidance: Local Government Sector Scenarios
- External Reporting Board: Sector-level scenario analysis » XRB
- Earth Sciences New Zealand (formerly NIWA): Climate change scenarios for New Zealand | Earth Sciences New Zealand | NIWA
- The Aotearoa Circle: Climate Scenarios
- Ministry for the Environment: Climate scenarios toolkit | Ministry for the Environment and A guide to local climate change
- Network for Greening the Financial System: NGFS Scenarios Portal
- Carbon Brief: Explainer: How 'Shared Socioeconomic Pathways' explore future climate change - Carbon Brief
- Taskforce for Climate-related Financial Disclosures: The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities - TCFD Knowledge Hub (note this is aimed at climate reporting, but includes links to other useful resources)
- Te Arawhiti: Crown engagement with Māori
- Bay of Plenty regional Council: Engaging with Māori
- New Zealand Transport Agency Waka Kotahi: Hononga ki te iwi Māori engagement framework
- Manaaki Whenua: Guidelines for engaging iwi and hapū
- Dr Sarah Forgesson: Māori Engagement in the Climate Space
- Ministry for Environment: Empowering Māori

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